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 tctcccggac tcctgaggtc acatgcgtgg tggtggacgt aagccacgaa gaccctgagg
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 tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg
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360

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catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct
atccaagcga catcgcgtg gagtgggaga gcaatgggca gccggagaac aactacaaga
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ccacqcctcc cqtqctqqac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg
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acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc
acaaccacta cacgcagaag ageeteteee tgteteeggg taaatggtg egaeggeege
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      (1994)), 18 nucleotides complementary to the SV40 early promoter,
      and a Xho I restriction site.
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<210> 4
<211> 27
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<213> Artificial Sequence
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<221> Primer Bind
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420

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                                                                      180
gcccctaact ccgcccagtt ccgcccattc tccgcccat ggctgactaa tttttttat
                                                                      240
ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt
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<210> 6
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<223> Synthetic primer complementary to human genomic EGR1 promoter
      sequence (Sakamoto et al., Oncogene 6:867871 (1991)); includes a
      Xho I restriction site.
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                                                                        12
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<211> 73
<212> DNA
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<223> Synthetic primer with 4 tandem copies of the NFKB binding site
       (GGGGACTTTCCC), 18 nucleotides complementary to the 5' end of the
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SV40 early promoter sequence, and a XhoI restriction site.

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ccatctcaat tag
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<212> DNA
<213> Artificial Sequence
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<221> Protein_Bind
<223> Synthetic promoter for use in biological assays; includes N+KB
     binding sites.
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cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga
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ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg
                                                                   240
                                                                   256
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<213> Homo sapiens

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<400> 233
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<223> n equals a,t,g, or c
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                                                                     1932
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<222> (916)..(916)
<223> n equals a,t,q, or c
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<222> (957)..(957)
<223> n equals a,t,g, or c
<400> 240
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aaaattgttg ttgacttggg tgtggcacct tggaagctga agatattcca ctgccaagta
                                                                     180
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acagcctgcc tcatctatat caatatgtat ttatcaatta tcttcttagc atttgtcagc
attgaccgct gtcttcagct gacacacagc tgcaagatct accgaataca agaacccgga
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                                                                      540
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                                                                      840
                                                                      900
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gggctttatg ggaccntaaa gttattatag cttggaaggt aaaaaaaaa aaagggnggg
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<211> 437
<212> DNA
<213> Homo sapiens
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<221> misc feature
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<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (427)..(427)
<223> n equals a,t,g, or c
<220>
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<222> (437)..(437)
<223> n equals a,t,g, or c
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tttccaaatc atgcttgtga ggacccccca gcagtgctct tagaagtgca gggcacctta
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                                                                    300
cagaggeee tggteegga cageegeace teeeetgeea actgeacetg geteacaaaa
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agagtgcaac aaatgcttct attccatagc tacggcattg ctcagtaagt tgaggtcaaa
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437
annaaanaaa aaaaaan
<210> 242
<211> 1914
<212> DNA
<213> Homo sapiens
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<221> misc feature
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<223> n equals a,t,g, or c
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tectaaceca acceaaceta geocagtece ageogecage geotgteect gteacggace
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                                                                    240
tgctcctggt aacttgggtt tttactcctg taacaactga aataacaagt cttgatacag
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agaatataga tgaaatttta aacaatgctg atgttgcttt agtaaatttt tatgctgact
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ggtgtcgttt cagtcagatg ttgcatccaatttttgagga agcttccgat gtcattaagg
                                                                    420
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                                                                    1860
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<221> misc feature
<222> (592)..(592)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (611)..(611)
<223> n equals a,t,g, or c
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<222> (613)..(613)
<223> n equals a,t,g, or c
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                                                                      360
                                                                      420
tgatttctgc atttccaact gagcaaacgg sacaccagaa gattatatcc catgcctggc
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tgggagggtc ccatgcccac ggagcctcgc t@ttgctag cacagcagtc tgagatccat
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ctgcaaggtg ggcagtawgg ctggsggagg ggcacccacc attgctgagg cttgagtagg
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<210> 244
<211> 708
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<213> Homo sapiens
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<221> misc feature
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tggaagttgt ggaatccact gttctctcaa accggtctct ttcccttgta cctatcatag
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tgtacatagc tcaacttcct gagtttgatt ctagtgttca aagataggta tttttcatat
                                                                    240
                                                                  300
aagatgtcct gtcaaagcaa gtcattgaac ttacctggta tttaactgaa aacaaacaaa
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aatcagcaat ctcttccatt gcttgtagaa atactgactt aggccaggca cagtggctca
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cgtctaatcc cagcactttg agaggccaag gcaggagtat catttgagcc caggagttcg
480
gagggaggg tggagccaga ggagggagg ggacactctg ttatacttat cgaaaggtgc
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tatccaggtg tggtagtgca gccgatagtc tcagctactc aggaggctga ggtgggagga
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                                                                    660
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<210> 245
<211> 556
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
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<223> n equals a,t,g, or c
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ggaagatttt cgagacatga tgcaaccag gtttgaagat ctgatggaga accttcctct
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gccagaatat accaaacgag atggcaggct caatctggcc tctaggctac ctagctactt
                                                                    240
tqtaaqqcct qatctqqqcc ccaaqatgta caacqcctat ggtatgaggg agaggctaaa
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agottacatg totocagtag tgaggaagtt tootgttaag aactotacco aaggagcoat
                                                                    480
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                                                                    540
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<210> 246
<211> 774
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (618)..(618)
<223> n equals a,t,g, \propto c
<220>
<221> misc_feature
<222> (715)..(715)
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<223> n equals a,t,g, or c

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cagageteta gacatteetg geetetggtg actattette aggeagetea eeetgeaagt
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                                                                   1320
ctttattgag cacctactgt gtgccaggca gtggtacagc aagggcagaa gccccacctc
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caagnanctg aacccctgcc gtggcagaga cagaaaacaa aggcagcacc acggcgacga
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gggctaaaga gaacgc
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<211> 1274
<212> DNA
<213> Homo sapiens
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tttaagaaac ttttgtgggt gcactgtagc atagatgaca gaatttgatg ttccccccat
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graggetatg tetgtatggt egatteteag ttateacatt tgeeteteet eccaetacet
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agcaattggg tagaattagt tgggggaata tttatgagtt gctgtgtttg ttgattagtt
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taaacaaccc cacaagcggc tgtatcagta acatttatta attccactat agtgagggag
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                                                                     780
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gcccacatag tgggaataaa ttgcttcagc catttttagt atttgagagc actagggaag
atgtttagta gctgtgtgga tgcctttttt cacaccctgt ctattgaatg ctgcatccat
                                                                     900
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aaaaattata taaactgtta aaatattaac acctcaggct acctgctgta ttctgtccca 1140
ttgacccctg gaattggatt tactgcaagt gattgataat tcaattatgt ggcttttccc
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ataatagaaa gagt
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<212> DNA
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<222> (392)..(392)
<223> n equals a,t,g, or c
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                                                                   120
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ctgccagctt ctgggagctg caggggcaga ggcagggagc tgtcaggcat tcagccagca
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gatgtcccca aagccagcgg ccctttctg tttcaccctg tctacagaat aaacccccag
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tcactggggg tgggggaaga gtaaggggag angggaaacg agatttggag gtctagctgc
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cagctccttt tgaggacttt gctamcggtt ctcagcatcc ctcaattgct ggctaggat
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<211> 1124
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ggcactgtgg tctggtggat aagagtggga gtcccaatcc tttctccgca gatgtgctag
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agaataaata cagcacctgc ctacctcatg gggttgtttc agcagtcaat gagatcatgt
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qaqtacctqt ctttattctt caacttgagt ctcctcccag tttgtttgga taaaaactca
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1380
                                                                    1440
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agcactgtcc caggatcctg gagagggaga acccctggcc ccaggggaaa gaggggggg
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tetecegttt cetgtgeetg caccageeet geececattg egtetgeaca eecetgegtg
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taactgcatt ccaaccacta ataaagtgcc tattgtacag gtmaaaaaaaa aaaaaaaaaa
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2645
ggggn
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<211> 1098
<212> DNA
<213> Homo sapiens
<220>
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<222> (74)..(74)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
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<222> (346)..(346)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (1085)..(1085)
<223> n equals a,t,g, or c
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\langle 222 \rangle (109\overline{3})...(1093)
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<220> .
<221> misc feature
<222> (1095)..(1095)
<223> n equals a,t,g, or c
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                                                                       120
                                                                       180
acgcgggcaa gatggaggcg actacggctg gtgtgggccg gctagaggaa gaggcgttgc
ggcgaaagga acggctgaag gccctacggg agaaaaccgggcgcaaggws agaagtgkgg
                                                                      240
                                                                       300
agtgagggtc gcagttgagg cgtccagcgt tcggggtccg ggtcgcgctt gaggagagca
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aagggctaat aaggaaagac agctgccgag ggcgcgcatg ccgggncgct aacgcatgcg
                                                                       420
cgagaagacg ggcgccctcc cacgatgtct ggggctgctt ggcgtgggac tcctctggcg
ctggtgcggt cgtcgcgcac gcgcgggggt gggcaargca gtggtcagcg acccgcagtc
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catctgactc ctgcttcccg ggtgttgctc gtgtaggtat ctagggctgc ctgtaggttc
                                                                       540
                                                                       600
agatgcttgt tgggttaggc gtgatttgtt ccgttcctct atggcctagc tggtctttaa
cccccgcctt cgattctgag tcagacagac tcccagtcc ggcagcactc cttggacagg
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qcaqcaaqtq ataqcaqtqq qtatacaqcc qqaqtcqttt cgtgcaaaaa tcaaaaagag
                                                                       720
                                                                       780
gccgggcacg gtggctcacg cctgtaatcc cagtgctttg ggaggccgag gcaggcggat
                                                                       874
cacttgaggt tagtagttcg agaccaggct gggtaacatg gtgaaacccc gcctctacta
                                                                       900
aaaatacaaa aattagccgg gcgtggtggt gcgcgcctgt aatcccagct tctcgggagg
ctatggcagg agaaccgctt gagcctggga ggtcagaggt tgtagtgagt ccgagatctc
                                                                       960
                                                                      1020
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cggccgctct agaggattcc ctcgagggg tcaagttyac gcgtggcatg cgwmgtgcag
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                                                                      1098
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<211> 538
<212> DNA
<213> Homo sapiens
<220>
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<222> (462)..(462)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (498)..(498)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (520)..(520)
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<400> 261
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catgtgattc agatgcccaa tcttactctg ttactttatg aaaatttttt aaagctatat
                                                                      120
gatgttatat caaaatatgt tgttatactt taggataatc ggtgtgttag ccctgaattt
                                                                       180
cagcataagt cccatttttt tccatgggag tctaggaaag ctatatgttt attcagcagc
                                                                       240
aaaatacagt ttggaactta aataaactat tgatcaattc tggtcttatg tagaaggaa
                                                                      300
taaagcatca agaaaaagaa aagattgctg tcaagaccag gaaaattgac aatagagtat
                                                                       360
tagaatgcag aaatgagggg aagtggaaar gccascaagt aggagagaaa aagtgcaggg
                                                                       420
acagtagaaa gtgaatgtag gagcttctga cccagcactc angaacgcaa ttcatcccta
                                                                       480
aaaagctgtt gcgtctangt tgccagtaac caattaaaan ccgtttgaag tagagtga
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<210> 262
<211> 1346
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<213> Homo sapiens
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<222> (5)..(5)
<223> n equals a,t,g, or c
<220>
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<222> (17)..(17)
<223> n equals a,t,g, or c
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<221> misc feature
<222> (21)..(21)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (36)..(36)
<223> n equals a,t,q, or c
<220>
<221> misc_feature
<222> (107)..(107)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (150)..(150)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (323)..(323)
<223> n equals a,t,g, or c
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<221> misc_feature
<222> (1307)..(1307)
<223> n equals a,t,g, or c
```

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\langle 222 \rangle (1337)...(1337)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1341)..(1341)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1343)..(1343)
<223> n equals a,t,g, or c
<400> 262
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ccatgtgcct ggaccttctc cagaccatgn aggcccaggc gagtgactca ctgccattca
                                                                       180
gtctccatct ttgggcagat ccaccatgag acataacttc ccagaaatcc agttacaagg
                                                                       240
aggaataagt attgaagact taagaaatgc attttgcagc aggtcctcgc tgtactgggg
                                                                      300
                                                                      360
cagcqgtcca ttcatagagc ccngctagaa tagaggtcac aagctcagaa gcttctctaa
                                                                       420
qqcaqqcaqq aaatttaaqt cqatactatq atctgcattg tgggctggaa tgaacggaag
gtgcctagtc taaacagctg cttgttgctc agctgttgtt gcgtattgg gaattcaagc
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ctaatgatgt ttggtattcc cattttcaaa agaagtcagg aaatgcagat ttctatgtaa
atttttaaaa cttctgaact gtgtatgagc catacaaaat acatttgcag gccagtcgac
                                                                       600
                                                                       660
atcctctqat ccagaatatc aatttgtgag acaagttgtt ggtgaggcag cattmcatag
tagttaaaaq catacatttt agaqccagac tgcccatgtc caaaccctgg tcccatcact
                                                                      720
                                                                       780
cactmeetty cattteactt etettigett caettteete ateagtaaaa taaaaataat
                                                                       840
atcagtacct acctcatagg gtttcatgag cattaaataa attaaaaccc ataaagtact
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ttcaatgcta tcaggcattt agttacatgg taaataætg tttaaaacat ttaaaacaaa
                                                                       960
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gatggcagat ctatcaacat ttctcccttt ggctgggatg aaaaggcatt tgggaataaa
                                                                      1020
                                                                      1080
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gaaatgagat ttaagcttat taaaatgtat ttctttctgg tgttaataac ccttcacaag
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<210> 263
<211> 912
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (36)..(36)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (93)..(93)
<223> n equals a,t,g, or c
<220>
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<223> n equals a,t,g, or c
<221> misc_feature
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<223> n equals a,t,g, or c
<400> 263
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                                                                      120
aattgctgga gagtagtcct tgttctttgc tgacaganca ggagcagagt gtggaatgaa
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aactcaatag cctcctctat tctcaagaga caattgactt ccatctgttt aaactcccc
                                                                     240
aggggaccct gctccccca tttccattta ctctcctttc caccaaccta gggtgacatt
                                                                      300
aagaaaacca aacccatttg aaacacaagc tcttacacat caaaagtcag gggagaagtc
                                                                      360
                                                                      420
tggttgacct gtaagccact gcatgaggca caaagatgca aaaaggaact ttcaggaaca
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actgctgctc cgaggactc atgtcagata taacatccgc tttggcccaa aagtaggctt
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gagccccaga agaggaggaa tgtcmagtat gtttaaaatg tgaaaccttt agttatactt
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tgcactattg gtagcaggtg ctgcctgggg tagctcttat ggtctgtgcttgaagtgtgc
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                                                                      720
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gatcaaatga ctcttatgat gacagctgtc tcactrtact ttcaaactgg ttttaatttg
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gttacttgca acctaagaca gcaracagca ttttagggat gaattgcgtt cctgaagtgc
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                                                                      912
gctgcccttc ca
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<212> DNA
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                                                                      300
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acagctcaaa gtgcagatcc tctgcccctc ctggcatccc agttggggg ggtcaggggt
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gggatetetg cagteagtge etgggggetg gatgacaage tgeageetee eegcaaceee
                                                                      540
                                                                      600
acgatttcca tagcgcagtg gagccagaaa gaaacagacc attttacaga ccagagaaac
aaggttgctg ctctctcaga ccctggagcc agtgacaggg aaggcggaga agggacgaga
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                                                                      720
gcctccgttt attcggagcc tgtgtatacc ctccttttca caaactgtag cagcctccag
aggcaggggg gatctttatg atgaccaaat ggggaggctt agggattgga aatcacttgc
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                                                                     900
                                                                      960
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gagecatatg gacetggatt tgacettgaa caggteattt cacetgagtg tgtatagtgg
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ccacgtgggt gtagtttcta gacagaagca gtgggaggag ggcactgcca agcatgctgc
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<210> 265
<211> 1964
<212> DNA
<213> Homo sapiens
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<223> n equals a,t,g, or c
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caagtgatta cctcataagg acaaactgag tcacgcggtg cgccgtctag aactagtgga
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tcccccgkct gyaggaattc ggcacgagtc ttgtgccagg cactgggata tggtgccgaa
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                                                                     360
                                                                      420
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                                                                      480
caaggcaggt tetteegtta geeectgete aaagetaggg gaeetggage acaggeggte
                                                                      540
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                                                                      660
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                                                                      900
                                                                      960
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                                                                     1020
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<210> 266
<211> 769
<212> DNA
<213> Homo sapiens
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<221> misc_feature
<222> (483)..(483)
<223> n equals a,t,g, or c
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<222> (667)..(667)
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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tcctgtgtgt cttgactgtc ggtgtgttgc cgagcattgg tagcagaggg ggctggtttg
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gctcaaagct aggggacctg gagcacaggc ggtcaagtgc ttggctcaag gcacacagct
                                                                       480
                                                                      540
canaaqtqca gatcctctgc ccctcctggc atcccagtct gggggggtca ggggtgggat
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<213> Homo sapiens
<220>
<221> misc_feature
<222> (68)..(69)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (82)..(82)
<223> n equals a,t,g, or c
<400> 267
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ctcgtagaag agtggagtct gatgagagag acagggaagt gaaaattcac agcccctgga
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                                                                      420
tgccagtgct gaaggagtgg gttcaggact gggaacatca gaatgggcat agtgacttat
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tctggggaag tcatgaaaag ctccctggag gaggtgatga aggggtaccc aagcctggaa
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tcctcactgt gagatgctgg ttgagacaat ttcctcctt gagtggcctg gttttttagg
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gccaagcatg ctgcttggga ttatgggtgt ccacagagct gcagtttctc caaaggtgtt
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<210> 268
<211> 2052
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2045)..(2045)
<223> n equals a,t,g, or c
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                                                                      120
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                                                                      420
                                                                      300
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<223> n equals a,t,g, or c
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<223> n equals a,t,g, or c
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taaaaccagc tggttggccc cactcagatt tatcaaaggg ttactgggtc cctgggggtg
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gatattgctt atattagact tagaatagca tactgtttta atattatatg aactaaaatg
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<211> 408
<212> DNA
<213> Homo sapiens
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<222> (350)..(350)
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<221> misc_feature
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<223> n equals a,t,g, or c
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<210> 287
<211> 1299
<212> DNA
<213> Homo sapiens
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ccttagttgc atttcctggg tttttgtgat gatcaatgga ctttaatgaa aaaaaaaata
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<210> 288
<211> 1669
<212> DNA
<213> Homo sapiens
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<223> n equals a,t,g, or c
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<221> misc feature
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<213> Homo sapiens
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<400> 292

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Thr Ala Trp Ala Ala Cys Pro Gly Gly Ala Cys Gly Leu Met Gly Glu
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His Arg Gly Leu Ile Pro Tyr Val 65 70 ·

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His Leu Ser Ser Pro Trp Phe His Val Arg Xaa Xaa Phe Phe Ser Gly
Xaa Pro Gly Cys Ile Trp Gly Ile Cys Phe Val Gy Leu Leu Gly
Ala Xaa Arg Pro Arg Ser Gly Cys Leu Cys Ser Pro Ser Xaa Cys Leu
Trp Ser Leu Val Val Cys Glu Ser Ile Cys Leu Pro Arg Xa Gly Pro
                 8.5
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Asn Gln Ala Pro Pro Xaa Pro Leu Phe Leu Ser Leu Asn Leu Pro Phe

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Leu Phe Gln Pro Leu Gln Met Arg Trp Leu Ser Ala Val Gly ffp Arg 115 120 125

Glu Ala Met 130

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Thr Ala Trp Ala Arg Arg Ser Gln Asp Leu His Cys Gly Ala Cys Arg 20 25 30

Ala Leu Val Asp Glu Leu Glu Trp Glu Ile Ala Gln Val Asp Pro Lys 35 40 45

Lys Thr Ile Gln Met Gly Ser Phe Arg Ile Asn Pro Asp Gly Ser Gln 50 60

Ser Val Val Glu Val Pro Tyr Ala Arg Ser Glu Ala His Leu Thr Glu 65 70 75 80

Leu Leu Glu Glu Ile Cys Asp Arg Met Lys Glu Tyr Gly Glu Gln Ile 85 90 95

Asp Pro Ser Thr His Arg Lys Asn Tyr Val Arg Val Val Gly Arg Asn 100 105 10

Gly Glu Ser Ser Glu Leu Asp Leu Gln Gly Ile Arg Ile Asp Ser Asp 115 120 125

Ile Ser Gly Thr Leu Lys Phe Ala Cys Glu Ser Ile Val Glu Glu Tyr 130 135 140

Glu Asp Glu Leu Ile Glu Phe Phe Ser Arg Glu Ala Asp Asn Val Lys
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Asp Lys Leu Cys Ser Lys Arg Thr Asp Leu Cys Asp His Ala Leu His 165 170 175

Ile Ser His Asp Glu Leu 180

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<211> 62

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<213> Homo sapiens

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Cys Ser Leu Leu Trp Pro Thr Arg Leu Arg Arg Ser Arg Gly Gly
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Glu His Arg Thr Pro Ser Glu Gly Glu Gly Ile Ser Thr Ala Pro Pro
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Pro Cys Trp Asn Glu Thr Gln Pro GlnGly Gly Ala Lys Leu 50 60

<210> 309

<211> 49

<212> PRT

<213> Homo sapiens

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Met Arg Leu Cys Ser Phe Thr Lys Val Pro Met Asn Leu Phe Leu Asn 1 5 10 15

Val Ile Leu Lys Phe Tyr Asn Phe Leu Phe Ser Leu Ile Leu Gly 20 25 30

Lys Ser Cys Leu Ala Ser Leu Gly Leu Cys Lys Asn Asn Lys Cys Leu 35 40 45

Ser

<210> 310

<211> 218

<212> PRT

<213> Homo sapiens

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Gly Trp Gly Gly Leu Ile Leu Ala Cys Gly Leu Pp Met Trp Gln Val 20 25 30

Thr Ala Phe Leu Asp His Asn Ile Val Thr Ala Gln Thr Thr Trp Lys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gly Leu Trp Met Ser Cys Val Val Gln Ser Thr Gly His Met Gn Cys
50 60

Lys Val Tyr Asp Ser Val Leu Ala Leu Ser Thr Glu Val Gln Ala Ala 65 70 75 80

Arg Ala Leu Thr Val Ser Ala Val Leu Leu Ala Phe Val Ala Leu Phe
85 90 95

Val Thr Leu Ala Gly Ala Gln Cys Thr Thr Cys Val Ala Pro Gly Pro 100 105 110

Ala Lys Ala Arg Val Ala Leu Thr Gly Gly Val Leu Tyr Leu Phe Cys 115 120 125

Gly Leu Leu Ala Leu Val Pro Leu Cys Trp Phe Ala Asn Ile Val Val 130 135 140

Arg Glu Phe Tyr Asp Pro Ser Val Pro Val Ser Gln Lys Tyr Glu Leu 145 150 155 160

Gly Ala Ala Leu Tyr Ile Gly Trp Ala Ala Thr Ala Leu Leu Met Val 165 \$170\$

Gly Gly Cys Leu Leu Cys Cys Gly Ala Trp Val Cys Thr Gly Arg Pro 180 185 190

Asp Leu Ser Phe Pro Val Lys Tyr Ser Ala Pro Arg Arg Pro Thr Ala 195 200 205

Thr Gly Asp Tyr Asp Lys Lys Asn Tyr Val 210 215

<210> 311

<211> 44

<212> PRT

<213> Homo sapiens

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Met Gln Cys Asp Thr Phe Ser Lys Ala Thr Cys Cys Lys Ile Leu Leu 1 5 10 15

Leu Ser Cys Cys Val Leu Tyr Leu Val Phe Ser Arg Leu Arg Gly Leu 20 25 30

Asp Gln Arg Ser Lys Arg Tyr Ser Leu Pro Asp His 35

<210> 312

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Ser Leu Gly Cys Ala Leu Thr Ser Ala Phe Pro Ala Ser Thr Met Ser

20 25 30

Trp Val Pro Leu Gln Met Leu Asp Gln Ser Pro Arg Arg Val Met 35 40 45

Arg Lys Ser Val Ser Gln Leu Cys Pro Leu Leu Arg Pro His Pro Pro 50 55 60

Leu Ser Ser Lys His Pro Leu Val Leu Pro Leu Gln Leu Pro Pro Thr 65 70 75 80

Phe Leu His Leu Leu Pro Gly Pro Gly Cys Pro Gly Gln Thr Val Ala 85 90 95

Tyr Trp Leu Leu Glu Phe Leu Ser Arg Ala Thr Leu Lys Leu Tyr Pro 100 105 110

Gly Asp Arg Pro Leu Trp Leu Gln Pro Thr Arg Leu Asn Phe Lys Asp 115 120 125

His Trp Thr Ile Phe Ser Val Ala Ser Ala Ala Leu Phe Cys Val His 130 135 140

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Cys Ser Gly Asn Tyr Gln Ser Ser Phe Cys His Tyr Arg Leu Ile Cys 35 40 45

Ile Phe Lys Glu Ile Tyr Ile His Gly Thr Ile His His Leu Cys Phe 50 55 60

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Val Val
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<213> Homo sapiens

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Leu Arg Phe Met Leu Cys His Val Phe Ser Ser Phe Leu Phe Val Met 50 55 60

Val Phe Gln Ile Val Glu Lys Glu Asn Ile Leu Phe Val Ile Ala Ser 65 70 75 80

Ala Ser Tyr Phe Cys Lys Thr Asn Tyr Ser Asn Ser Val Val 85 90

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<213> Homo sapiens

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Glu Glu Val Pro Glu Glu Trp Val Leu His Val Val Gln Gly Gln
35 40 45

Ile Gly Ala Gly Asn Tyr Ser Tyr Leu Arg Leu Asn His Glu Gly Lys 50 55 60

Ile Val Leu Arg Met Arg Ser Leu Lys Gly Asp Ala Asp Leu Tyr Val 65 70 75 80

Ser Ala Ser Ser Leu His Pro Ser Phe Asp Asp Tyr Glu Leu Gln Ser 85 90 95

Ala Thr Cys Gly Pro Asp Ala Val Ser Ile Pro Ala His Phe Arg Arg 100 105 110

Pro Val Gly Ile Gly Val Tyr Gly His Pro Ser His Leu Glu Ser Glu 115 120 125

Phe Glu Met Lys Val Tyr Tyr Asp Gly Thr Val Glu Gln His Pro Phe 130 135 140

Gly Glu Ala Ala Tyr Pro Ala Asp Gly Ala Asp Ala Gly Gln Lys His 145 150 155 160

Ala Gly Ala Pro Glu Asp Ala Ser Gln Glu Glu Glu Ser Val Leu Trp 165 170 175

Thr Ile Leu Ile Ser Ile Leu Lys Leu Glu Leu Glu Ile Leu Phe 180 185 190

<210> 316

<211> 129

<212> PRT

<213> Homo sapiens

<400> 316

Met His Val Leu Pro Leu Leu Leu Ser Leu Leu Leu Leu Leu Leu Leu 1 5 10 15

Leu Ser Ala Ser Phe Val Thr Phe Ser Thr ProThr Ser Ser Arg Asn 20 25 30

Ser Ser Cys Pro Asp Cys Glu Ser Leu Asn Thr Gly Leu Pro Ser Leu 35 40 45

Met Met Phe Gly Gly Ser Leu Leu Lys Trp Val Gln Asn ThrHis Gly 50 60

Val Glu Ser Leu Leu Ser Ser Ala Lys Val Arg Leu Leu Pro Pro Ala 65 70 75 80

Leu Gly Val Leu Phe Pro Arg Leu His Pro Gly Thr Leu Thr Leu Val

Phe Leu Leu Ile Pro Phe Leu Thr Val Ser Ser Ser Thr Ser Asp Val 100 105 110

Leu Ser Ser Leu Glu Ser Pro Lys Leu Ser Val Thr Ile Phe His Tyr 115 120 125

Cys

<210> 317

<211> 385

<212> PRT

<213> Homo sapiens

<400> 317 Met Ser Phe Ile Met Lys Leu His Arg His Phe Gln Arg Thr Val Ile Leu Leu Ala Thr Phe Cys Met Val Ser Ile Ile Ile Ser Ala Tyr Tyr 25 Leu Tyr Ser Gly Tyr Lys Gln Glu Asn Glu Leu Ser Glu Thr Ala Ser 40 Glu Val Asp Cys Gly Asp Leu Gln His Leu Pro Tyr Gln Leu Met Glu Val Lys Ala Met Lys Leu Phe Asp Ala Ser Arg Thr Asp Pro Thr Val Leu Val Phe Val Glu Ser Gln Tyr Ser Ser Leu Gly Gln Asp Ile Ile Met Ile Leu Glu Ser Ser Arg Phe Gln Tyr His Ile Glu Ile Ala Pro Gly Lys Gly Asp Leu Pro Val Leu Ile Asp Lys Met Lys Gly Lys Tyr Ile Leu Ile Ile Tyr Glu Asn Ile Leu Lys Tyr Ile Asn Met Asp Ser 135 Trp Asn Arg Ser Leu Leu Asp Lys Tyr CysVal Glu Tyr Gly Val Gly 150 155 Val Ile Gly Phe His Lys Thr Ser Glu Lys Ser Val Gln Ser Phe Gln 165 170 Leu Lys Gly Phe Pro Phe Ser Ile TyrGly Asn Leu Ala Val Lys Asp Cys Cys Ile Asn Pro His Ser Pro Leu Ile Arg Val Thr Lys Ser Ser Lys Leu Glu Lys Gly Ser Leu Pro Gly Thr Asp TrpThr Val Phe Gln 215 Ile Asn His Ser Ala Tyr Gln Pro Val Ile Phe Ala Lys Val Lys Thr Pro Glu Asn Leu Ser Pro Ser Ile Ser Lys Gly Ala Phe TyrAla Thr

Ile Ser Phe Leu Ser Gly Lys Arg Leu Thr Leu Ser Leu Asp Arg Tyr

Ile Ile His Asp Leu Gly Leu His Asp Gly Ile Gln Arg Val Leu Phe

Gly Asn Asn Leu Asn Phe Trp Leu His Lys Leu Ile Phe Ile AspAla 275 280 285

265

260

250

290 295 300

Ile Leu Val Asp Ile Asp Asp Ile Phe Val Gly Lys Glu Gly Thr Arg 305 310 315 320

Met Asn Thr Asn Asp Val Lys Val Arg Leu Tyr Phe Leu Lys Phe Gln 325 330 335

Ser Ser Val His Leu Pro Ala Gly Ile Gln Leu Ser Gln Phe Val Leu 340 345 350

Gln Leu Gly Tyr Pro Gly His Gly Ile Tyr Trp Glu Ser Leu Gly Asn 355 360 365

Leu Gly Leu Ser Leu Thr Leu Asn Gln Leu Arg Arg Leu Cys Ile Ser 370 375 380

Ile 385

<210> 318

<211> 110

<212> PRT

<213> Homo sapiens

<400> 318

Met Thr Val Ser Tyr Phe Trp Trp Leu Arg Val Gly Ala Trp Ala Glu
1 10 15

Asp Val Glu Ala Leu Ala Ser Leu Pro Glu Asp Arg Leu Arg Trp Asn 20 25 30

Leu Leu Ala Leu Pro Ala Ser Pro Cys Ala Val Thr Ala Leu Val Ala 35 40 45

Arg His Arg Arg Ala Gly Leu Gln Arg Ser Ile Gln Cys Leu Leu Gly 50 55 60

Arg Gln Gly Gly Gly Cys Asn Cys Glu Leu Thr Lys Pro Gln Val 65 70 75 80

Gly Ser Lys Trp Val Gly His Arg LysLys Ser Asp Leu Gln Ser Gly 85 90 95

Asp Leu Gly Ser Gly Leu Cys Leu Met Thr Gly Ser Val Met 100 105 110

<210> 319

<211> 258

<212> PRT

<213> Homo sapiens

<400> 319

Met Tyr Ile Trp Phe Ile Ile Phe Phe Ile Gln Pro His Lys Glu Glu 15

Arg Phe Leu Phe 20 Val Tyr Pro Leu 25 Ile Cys Leu Cys Gly Ala Val 30

Ala Leu Ser Ala Leu Gln Lys Cys Tyr His Phe Val Phe Gln Arg Tyr 45

Arg Leu Glu His Tyr Thr Val Thr Ser Asn Trp Leu Ala Leu Gly Thr 55

Val Phe Leu Phe Gly Leu Leu Ser Phe Ser Arg Ser Val Ala Leu Phe 65

Arg Gly Tyr His Gly Pro Leu Asp Leu Tyr Pro Glu Phe Tyr Arg Ile 95

85 90 95

Ala Thr Asp Pro Thr Ile His Thr Val Pro Glu Gly Arg Pro Val Asn 100 105 110

Val Cys Val Gly Lys Glu Trp Tyr Arg Phe Pro Ser Ser Phe Leu Leu 115 120 125

Pro Asp Asn Trp Gln Leu Gln Phe Ile Pro Ser Glu Phe Arg Gly Gln 130 135 140

Leu Pro Lys Pro Phe Ala Glu Gly Pro Leu Ala Thr Arg Ile Val Pro 145 150 155 160

Thr Asp Met Asn Asp Gln Asn Leu Glu Glu Pro Ser Arg Tyr Ile Asp 165 170 175

Ile Ser Lys Cys His Tyr Leu Val Asp Leu Asp Thr Met Arg Glu Thr 180 185 190

Pro Arg Glu Pro Lys Tyr Ser Ser Asn Lys Glu Glu Trp Ile Ser Leu 195 200 205

Ala Tyr Arg Pro Phe Leu Asp Ala Ser Arg Ser Ser Lys Leu Leu Arg 210 215 220

Ala Phe Tyr Val Pro Phe Leu Ser Asp Gln Tr Thr Val Tyr Val Asn 225 230 235 240

Tyr Thr Ile Leu Lys Pro Arg Lys Ala Lys Gln Ile Arg Lys Lys Ser 245 250 255

Gly Gly

<210> 320

<211> 38

<212> PRT

<213> Homo sapiens

<400> 320

Met Lys Asn Met Asn Ser Arg Tyr Tyr Leu Arg Ala Ile Phe Cys Leu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Tyr Thr Leu Ala Cys Ile Leu Phe Leu Gln Ile Ile Leu Lys Ala Arg 20 25 30

Cys Gly Gly Ser Arg Leu 35

<210> 321

<211> 146

<212> PRT

<213> Homo sapiens

<400> 321

Met Leu Met Pro Val His Phe Leu Leu Leu Leu Leu Leu Leu Gly

1 D 15

Gly Pro Arg Thr Gly Leu Pro His Lys Phe Tyr Lys Ala Lys Pro Ile 20 25 30

Phe Ser Cys Leu Asn Thr Ala Leu Ser Glu Ala Glu Lys Gly Gln Trp $35 \hspace{1cm} 40 \hspace{1cm} 45$

Glu Asp Ala Ser Leu Leu Ser Lys Arg Ser Phe His Tyr Leu Arg Ser 50 55 60

Arg Asp Ala Ser Ser Gly Glu Glu Glu Glu Gly Lys Glu Lys Lys Thr 65 70 75

Phe Pro Ile Ser Gly Ala Arg Gly Gly Ala Arg Gly Thr Arg Tyr Arg $85 \hspace{1cm} 90 \hspace{1cm} 95$

Tyr Val Ser Gln Ala Gln Pro Arg Gly Lys Pro Arg Gln Asp Thr Ala 100 105 110

Lys Ser Pro His Arg Thr Lys Phe Thr Leu Ser Leu Asp Val Pro Thr 115 120 125

Asn Ile Met Asn Leu Leu Phe Asn Ile Ala Lys Ala Lys Asn Leu Arg 130 135 140

Ala Gln 145

<210> 322

<211> 199

<212> PRT

<213> Homo sapiens

<400> 322

Met Arg Arg Leu Leu Leu Ala Leu Pro Phe Ala Leu Leu Pro Leu Ala 1 5 10 15

Val Ala His Ala His Glu Asp His Asp His Glu His Gly Ser LeuGly 20 25 30

Ala His Glu His Gly Val Gly Arg Leu Asn Ala Val Leu Asp Gly Gln 35 40 45

Ala Leu Glu Leu Glu Leu Asp Ser Pro Ala Met Asn Leu Val Gly Phe 50 60

Glu His Val Ala Thr Ser Ala Ala Asp Lys Ala Lys Val Ala Ala Val 65 70 75 80

Arg Lys Gln Leu Glu Asn Pro Ser Ala Leu Phe Asn Leu Pro Lys Ala 85 90 95

Ala Gly Cys Val Val Ser Ser Gln Glu Leu Asn Ser Pro Leu Phe Gly
100 105 110

Asp Lys Pro Glu Ala Glu His Asp Asp Asp His Ala Ser Asp Gly
115 120 125

Lys Gly Ala Ala Ala His Lys His Asp His Asp His Ser Glu Ile His 130 135 140

Ala His Tyr Gln Phe Thr Cys Ala Thr Pro Thr Ala Leu Gly Asn Leu 145 150 155 160

Asp Leu Ser Gln Val Phe Lys Thr Phe Pro Ala Thr Gln Lys Ile Gln
165 170 175

Val Gln Leu Ile Gly Pro Ser Gly Gln Gln Gly Val Asp Ala Thr Ala 180 185 190

Thr Ala Ala Thr Leu Lys Phe 195

<210> 323

<211> 84

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring Hamino acids

<400> 323

Met Trp Val Phe Phe Leu Pro Phe Phe Ser Ile Leu Phe Lys Ile Cys 1 5 10 15

Trp Cys Ile Ser Leu Ser Gln Thr Lys Glu Lys Gln Ser Ser Asn Leu 20 25 30 Met Phe Tyr Phe Phe Cys Ile Cys Thr Tyr Glu Arg Arg Lys Lys 35 40 45

Glu Met Arg Arg Gly Glu Lys Lys Arg Ser Phe Cys Leu Ile Gly Leu 50 55 60

Xaa Gln His Met Ile Ala Val Gln Ala Trp Phe His Glu Gln His Gln 65 70 75 80

Ile Gln Ile Ser

<210> 324

<211> 74

<212> PRT

<213> Homo sapiens

<400> 324

Met Ala Cys Leu Gly Ala Pro Ile Ser Ser Leu Leu Cys Trp Leu Leu 1 5 10 15

Leu Ala Leu Ile Ala Leu Glu Ile Val Pro Pro Ala Ala Pro Cys Glu 20 25 30

Val Leu Thr Pro Leu Gln Ser Ser Thr Asn Pro Ile Val Asn Lys Leu 35 40 45

Gly Val Lys Asp Val Asn Glu Leu Val Thr Pro Met Gln Gly Ile Gln 50 55 60

Thr Cys Phe Asn Ile Lys Lys Lys Trp Pro 65 70

<210> 325

<211> 57

<212> PRT

<213> Homo sapiens

<400> 325

Met Ala Val Ser Val Ile Phe Cys Gln Lys Leu Lys Thr Gly Ser Val 1 5 10 15

Lys Leu Trp Ile Gln Met Leu Leu Trp Leu Gln Phe Ser Val Ala Cys 20 25 30

Leu Arg Leu Arg Lys Gly Gly Lys Trp Ser Pro Trp Gly Leu Met Leu $35 \hspace{1cm} 40 \hspace{1cm} 45$

Lys Glu Val Ile Trp Lys Asp Cys Arg

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<210> 326
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<211> 83

<212> PRT

<213> Homo sapiens

<400> 326

Met Leu Ser Leu Phe Phe Cys Phe Trp Lys Pro Ser Phe Leu Val Ser 1 5 10 15

Arg Leu Val Ile Trp Leu Gly Leu Val Cys Gly Gly Arg Ser Leu Ser 20 25 30

Trp Val Ala Leu Gly Glu Asp Tyr Leu Gly Thr Pro Ile Leu Ile Pro 35 40 45

Asn Ile His Gln Thr Cys Pro His Pro Pro Leu Trp Glu Leu Val Pro 50 55 60

Glu His Pro Cys Arg Leu Val Leu Ile Phe Ser Leu Cys Glu His Thr 65 70 75 80

His Ile Arg

<210> 327

<211> 30

<212> PRT

<213> Homo sapiens

<400> 327

Met Val Ser Leu Leu Ser Leu Thr Phe His Gln Phe Val Ser Ser Leu 1 5 10 15

Lys Tyr Phe Lys Leu Ser Thr Ser Arg Gln Glu Ile Leu 20 25 30

<210> 328

<211> 336

<212> PRT

<213> Homo sapiens

<400> 328

Met Ile Ser Tyr Ile Val Leu Leu Ser Ile Leu Leu Trp Pro Leu Val 1 5 10 15

Val Tyr His Glu Leu Ile Gln Arg Met Tyr Thr Arg Leu Glu Pro Leu 20 25 30

Leu Met Gln Leu Asp Tyr Ser Met Lys Ala Glu Ala Asn Ala Leu His 35 40 45

His Lys His Asp Lys Arg Lys Arg Gln Gly Lys Asn Ala Pro Pro Gly

Gly 65	Asp	Glu	Pro	Leu	Ala 70	Glu	Thr	Glu	Ser	Glu 75	Ser	Glu	Ala	Glu	Leu 80
Ala	Gly	Phe	Ser	Pro 85	Val	Val	Asp	Val	Lys 90	Lys	Thr	Ala	Leu	Ala 95	Leu
Ala	Ile	Thr	Asp 100	Ser	Glu	Leu	Ser	Asp 105	Glu	Glu	Ala	Ser	Ile 110	Leu	Glu
Ser	Gly	Gly 115	Phe	Ser	Val	Ser	Arg 120	Ala	Thr	Thr	Pro	Gln 125	Leu	Thr	Asp
Val	Ser 130	Glu	Asp	Leu	Asp	Gln 135	Gln	Ser	Leu	Pro	Ser 140	Glu	Pro	Glu	Glu
Thr 145	Leu	Ser	Arg	Asp	Leu 150	Gly	Glu	Gly	Glu	Glu 155	Gly	Glu	Leu	Ala	Pro 160
Pro	Glu	Asp	Leu	Leu 165	Gly	Arg	Pro	Gln	Ala 170	Leu	Ser	Arg	Gln	Ala 175	Leu
Asp	Ser	Glu	Glu 180	Glu	Glu	Glu	Asp	Val 185	Ala	Ala	Lys	Glu	Thr 190	Leu	Leu
Arg	Leu	Ser 195	Ser	Pro	Leu	His	Phe 200	Val	Asn	Thr	His	Phe 205	Asn	Gly	Ala
Gly	Ser 210	Pro	Gln	Asp	Gly	Val 215	Lys	Cys	Ser	Pro	Gly 220	Gly	Pro	Val	Glu
Thr 225	Leu	Ser	Pro	Glu	Thr 230	Val	Ser	đу	Gly	Leu 235	Thr	Ala	Leu	Pro	Gly 240
Thr	Leu	Ser	Pro	Pro 245	Leu	Cys	Leu	Val	Gly 250	Ser	Asp	Pro	Ala	Pro 255	Ser
Pro	Ser	Ile	Leu 260	Pro	Pro	Val	Ρrο	Gln 265	Asp	Ser	Pro	Gln	Pro 270	Leu	Pro
Ala	Pro	Glu 275	Glu	Glu	Glu	Ala	Leu 280	Thr	Thr	Glu	Asp	Phe 285		Leu	Leu
Asp	Gln 290	Gly	Glu	Leu	Glu	Gln 295	Leu	Asn	Ala	Œ u	Leu 300	Gly	Leu	Glu	Pro
Glu 305	Thr	Pro	Pro	Lys	Pro 310	Pro	Asp	Ala	Pro	Pro 315		Gly	Pro	Asp	Ile 320
His	Ser	Leu	Val	Gln 325	Ser	Asp	Gln	Glu	Ala 330		Ala	Al	Ala	Glu 335	

<210> 329

<211> 60

<212> PRT

<213> Homo sapiens

<400> 329

Met Val Ser Arg Ser Thr Ser Leu Thr Leu Ile Val Phe Leu Phe His $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Arg Leu Ser Lys Ala Pro Gly Lys Met Val Glu Asn Ser Pro Ser Pro 20 25 30

Leu Pro Glu Arg Ala Ile Tyr Gly Phe Val Leu Phe Leu Ser Ser Gln 35 40 45

Phe Gly Phe Lys Asn Leu Lys Gly Ser Arg Val Cys 50 55 60

<210> 330

<211> 224

<212> PRT

<213> Homo sapiens

<400> 330

Met Gly Ile Phe Pro Gly Ile Ile Leu Ile Phe Leu Arg Val Lys Phe 1 5 10 15

Ala Thr Ala Ala Val Ile Val Ser Gly His Gln Lys Ser Thr Thr Val

Ser His Glu Met Ser Gly Leu Asn Trp Lys Pro Phe Val Tyr Gly Gly 35 40 45

Leu Ala Ser Ile Val Ala Glu Phe Gly Thr Phe Pro Val Asp Leu Thr 50 55 60

Lys Thr Arg Leu Gln Val Gln Gly Gln Ser Ile Asp Ala Arg Phe Lys 65 70 75 80

Glu Ile Lys Tyr Arg Gly Met Phe His Ala Leu Phe Arg Ile Cys Lys 85 90 95

Glu Glu Gly Val Leu Ala Leu Tyr Ser Gly Ile Ala Pro Ala Leu Leu 100 105 110

Arg Gln Ala Ser Tyr Gly Thr Ile Lys Ile Gly Ile Tyr Gln Ser Leu

Lys Arg Leu Phe Val Glu Arg Leu Glu Asp Glu Thr Leu Leu Ile Asn 130 135 140

Met Ile Cys Gly Val Val Ser Gly Val Ile Ser Ser Thr Ile Ala Asn 145 150 155 160 Pro Thr Asp Val Leu Lys Ile Arg Met Gln Ala Gln Gly Ser Leu Phe 165 170 175

Gln Gly Ser Met Ile Gly Ser Phe Ile Asp Ile Tyr Gln Gln Glu Gly 180 185 190

Thr Arg Gly Leu Trp Arg Val Ser Thr Leu Phe Leu Leu Leu Ser Tyr 195 200 20

Thr Leu Ser Ser Tyr Asn Leu Gln Arg Ile Phe Phe Tyr Ile Lys Thr 210 215 220

<210> 331

<211> 58

<212> PRT

<213> Homo sapiens

<400> 331

Met Ser Ser Phe Pro Gly Pro Gln Cys Val Gln Leu Ile Asn LeuLeu 1 5 10 15

His Leu Ile Cys Pro Val Ser Gly Leu Val Cys Ser Ala Ile Thr Ile 20 25 30

Ala Leu Arg Gln Lys Ser Ile Pro His Gln Gln Gly Arg Glu Ala Val\$35\$ 40 45

Ile Lys Thr Pro Pro Pro Gly Ser Leu Pro 50 55

<210> 332

<211> 46

<212> PRT

<213> Homo sapiens

<400> 332

Met Asp Leu Cln Val Cys Phe Phe Leu Phe Phe Ser His Læ Trp
1 5 10 15

Ser Trp Thr Glu Gly Lys Leu Pro Cys Asn Phe Pro Gly Pro Val Gly 20 25 30

Arg Val Phe Leu Ser Pro Phe Gln Met Leu Gly Phe Lys Gln 35 40 45

<210> 333

<211> 47

<212> PRT

<213> Homo sapiens

<400> 333

Met Phe Tyr Pro Pro Cys Pro Phe Phe Pro Gln Leu Cys Phe Cys Ile 1 5 10 15

Phe Phe Leu Gly Lys Cys Lys Leu Ser Leu Ser Phe Met Thr Cys Glu 20 25 30

Ile Ser Val Ser Leu Glu Phe Val Arg Arg Arg Gly Asn His Ala 35 40 45

<210> 334

<211> 40

<212> PRT

<213> Homo sapiens

<400> 334

Met Ile Ile Leu His Ile Val Val Cys Leu Phe Thr Ile Ser Ile Ile 1 5 10 15

Glu Glu Gln Lys Glu Glu Ile Leu Cys Ser Thr Lys Ser Gln Ala Glu 20 25 30

Lys Thr Val Thr His Ile Glu Gln 35 40

<210> 335

<211> 65

<212> PRT

<213> Homo sapiens

<400> 335

Met Leu Ser Pro Lys Ser Pro Arg Met Leu Leu Pro Cys Leu Leu Gln
1 10 15

Pro Leu Val Val Ala Asn Ile Pro Arg Val Pro Trp Leu Ala Asp Glu 20 25 30

Ser Leu Asn Pro Thr Pro Ile Ile Thr Trp Gln Ser Pro Cys Val Ala 35 40 45

Gln Leu Cys Pro Asn Phe Pro Phe Pro Thr Arg Thr Leu Val Thr Gly 50 55 60

Leu

65

<210> 336

<211> 108

<212> PRT

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<213> Homo sapiens
<220>
<221> SITE
<222> (62)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring bamino acids
<400> 336
Met Gly Ala Ala Lys Val Trp Gly Glu Val Gly Arg Trp Leu Val Ile
Ala Leu Ile Gln Leu Ala Lys Ala Val Leu Arg Met Leu Leu Leu Leu
Trp Phe Lys Ala Gly Leu Gln Thr Ser Pro Pro Ile Val Pro Leu Asp
Arg Glu Thr Arg His Ser Pro Arg Met Val Thr Thr Ala Xaa Xaa Thr
Met Ser Ser Pro Thr Trp Gly Ser Gly Gln Thr Gly Trp Cys Glu Pro
Ser Arg Thr Arg Arg Pro Cys Thr Pro Gly Thr Gly Glu Leu Pro Ser
Ser Gly Arg Asp Gly Ser Ser Ser Ile Thr Arg Ser
            100
                                105
<210> 337
<211> 413
<212> PRT
<213> Homo sapiens
<400> 337
Met Arg Arg Gly Cys Ala Val Leu Gly Ala Leu Gly Leu Leu Ala Gly
Ala Gly Val Gly Ser Trp Leu Leu Val Leu Tyr Leu Cys Pro Ala Ala
                                 25
Ser Gln Pro Ile Ser Gly Thr Leu Gln Asp Glu Glu Ile Thr Leu Ser
Cys Ser Glu Ala Ser Ala Glu Glu Ala Leu Leu Pro Ala Leu Pro Lys
```

75

Thr Val Ser Phe Arg Ile Asn Ser Glu Asp Phe Leu Leu Glu Ala Gln

70

65

Val Arg Asp Gln Pro Arg Trp Leu Leu Val Cys His Glu Gly Trp Ser Pro Ala Leu Gly Leu Gln Ile Cys Trp Ser Leu Gly His Leu Arg Leu Thr His His Lys Gly Val Asn Leu Thr Asp Ile Lys Leu Asn Ser Ser Gln Glu Phe Ala Gln Leu Ser Pro Arg Leu Gly Gly Phe Leu Glu Glu 135 Ala Trp Gln Pro Arg Asn Asn Cys Thr Ser Gly Gln Val Val Ser Leu 150 155 Arg Cys Ser Glu Cys Gly Ala Arg Pro Leu Ala Ser Arg Ile Val Gly 170 Gly Gln Ser Val Ala Pro Gly Arg Trp Pro Trp Gln Ala Ser Val Ala Leu Gly Phe Arg His Thr Cys Gly Gly Ser Val Leu Ala Pro Arg Trp Val Val Thr Ala Ala His Cys Met His Ser Phe Arg Leu Ala Arg Leu Ser Ser Trp Arg Val His Ala Gly Leu Val Ser His Ser Ala Val Arg 235 Pro His Gln Gly Ala Leu Val Glu Arg Ile Ile Pro His Pro Leu Tyr 245 Ser Ala Gln Asn His Asp Tyr Asp Val Ala Leu Leu Arg Leu Gln Thr 265 Ala Leu Asn Phe Ser Asp Thr Val Gly Ala Val Cys Leu Pro Ala Lys 275 Glu Gln His Phe Pro Lys Gly Ser Arg Cys Trp Val Ser Gly Trp Gly His Thr His Pro Ser His Thr Tyr Ser Ser Asp Met Leu Gln Asp Thr Val Val Pro Leu Phe Ser Thr Gln Leu Cys Asn Ser Ser Cys Val Tyr 325 330 Ser Gly Ala Leu Thr Pro Arg Met Leu Cys Ala Gly Tyr Leu Asp Gly Arg Ala Asp Ala Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Pro Asp Gly Asp Thr Trp Arg Leu Val Gly Val Val Ser Trp Gly Arg Gly 370 375 380

Cys Ala Glu Pro Asn His Pro Gly Val Tyr Ala Ly Val Ala Glu Phe 385 390 395 400

Leu Asp Trp Ile His Asp Thr Ala Gln Asp Ser Leu Leu 405 410

<210> 338

<211> 315

<212> PRT

<213> Homo sapiens

<400> 338

Met Glu Ser Leu Tyr Asp Leu Trp Glu Phe Tyr Leu Pro Tyr Leu Tyr 1 5 10 15

Ser Cys Ile Ser Leu Met Gly Cys Leu Leu Leu Leu Leu Cys Thr Pro 20 25 30

Val Gly Leu Ser Arg Met Phe Thr Val Met Gly Gln Leu Leu Val Lys 35 40 45

Pro Thr Ile Leu Glu Asp Leu Asp Glu Gln Ile Tyr Ile Ile Thr Leu 50 55 60

Glu Glu Glu Ala Leu Gln Arg Arg Leu Asn Gly Leu Ser Ser Val
65 70 75 80

Glu Tyr Asn Ile Met Glu Leu Glu Glu Leu Glu Asn Val Lys Thr 85 90 95

Leu Lys Thr Lys Leu Asp Pro Trp Ser Ser Phe Ser Val Leu Gln Ser 100 105 110

Pro Val Trp His Phe Ala Ala Gln Thr Pro Ala Asp Ile Val Ser Pro 115 120 125

Asp Ser His Phe Met Leu Ser Thr GlnGly Met Ser Trp Ala Gln Leu 130 135 140

Val Phe Leu Leu Pro Ala Ser Arg Pro Gly Asn Ser Gln Asp Lys Arg 145 150 155 160

Arg Lys Lys Ala Ser Ala Trp Glu Arg Asn LeuVal Tyr Pro Ala Val 165 170 175

Met Val Leu Leu Ile Glu Thr Ser Ile Ser Val Leu Leu Val Ala 180 185 190

Cys Asn Ile Leu Cys Leu Leu Val Asp Glu Thr AlaMet Pro Lys Gly 195 200 205

Thr Arg Gly Pro Gly Ile Gly Asn Ala Ser Leu Ser Thr Phe Gly Phe 210 215 220

Val Gly Ala Ala Leu Glu Ile Ile Leu Ile Phe Tyr Leu Met Val Ser

225					230					235					240
Ser	Val	Val	Gly	Phe 245	Tyr	Ser	Leu	Arg	Phe 250	Phe	Gly	Asn	Phe	Thr 255	Pro
Lys	Lys	Asp	Asp 260	Thr	Thr	Met	Thr	Lys 265	Ile	Ile	Gly	Asn	Cys 270	Val	Ser
Ile	Leu	Val 275	Leu	Ser	Ser	Ala	Leu 280	Pro	Val	Met	Ser	Arg 285	Thr	Leu	Gly
Leu	His 290	Lys	Leu	His	Leu	Pro 295	Asn	Thr	Ser	Arg	Asp 300	Ser	Glu	Thr	Ala

Lys Pro Ser Val Asn Gly His Gln Lys Ala Leu 305 310 315

<210> 339

<211> 941

<212> PRT

<213> Homo sapiens

<400> 339

Met Val Phe Leu Pro Leu Lys Trp Ser Leu Ala Thr MetSer Phe Leu 1 5 10 15

Leu Ser Ser Leu Leu Ala Leu Leu Thr Val Ser Thr Pro Ser Trp Cys 20 25 30

Gln Ser Thr Glu Ala Ser Pro Lys Arg Ser Asp Gly Thr ProPhe Pro
35 40 45

Trp Asn Lys Ile Arg Leu Pro Glu Tyr Val Ile Pro Val His Tyr Asp 50 55 60

Leu Leu Ile His Ala Asn Leu Thr Thr Leu Thr Phe Trp Gly Thr Thr 65 70 75 80

Lys Val Glu Ile Thr Ala Ser Gln Pro Thr Ser Thr Ile Ile Leu His 85 90 95

Ser His His Leu Gln Ile Ser Arg Ala Thr Leu Arg Lys Gly Ala Gly 100 105 110

Glu Arg Leu Ser Glu Glu Pro Leu Gln Val Leu Glu His Pro Pro Gln
115 120 125

Glu Gln Ile Ala Leu Leu Ala Pro Glu Pro Leu Leu Val Gly Leu Pro 130 135 140

Tyr Thr Val Val Ile His Tyr Ala Gly Asn Leu Ser Glu Thr Phe His 145 150 155 160

Gly Phe Tyr Lys Ser Thr Tyr Arg Thr Lys Glu Gly Glu Leu Arg Ile 165 170 175 Leu Ala Ser Thr Gln Phe Glu Pro Thr Ala Ala Arg Met Ala Phe Pro 180 185 Cys Phe Asp Glu Pro Ala Phe Lys Ala Ser Phe Ser Ile Lys Ile Arg 200 Arg Glu Pro Arg His Leu Ala Ile Ser Asn Met Pro Leu Val Lys Ser 215 Val Thr Val Ala Glu Gly Leu Ile Glu Asp His Phe Asp Val Thr Val 235 Lys Met Ser Thr Tyr Leu Val Ala Phe Ile Ile Ser Asp Phe Glu Ser Val Ser Lys Ile Thr Lys Ser Gly Val Lys Val Ser Val Tyr Ala Val Pro Asp Lys Met Asn Gln Ala Asp Tyr Ala Leu Asp Ala Ala Val Thr Leu Leu Glu Phe Tyr Glu Asp Tyr Phe Ser Ile Pro Tyr Pro Leu Pro Lys Gln Asp Leu Ala Ala Ile Pro Asp Phe Gln Ser Gly Ala Met Glu 315 Asn Trp Gly Leu Thr Thr Tyr Arg Glu Ser Ala Leu Leu Phe Asp Ala 325 335 330 Glu Lys Ser Ser Ala Ser Ser Lys Leu Gly Ile Thr Met Thr Val Ala 345 His Glu Leu Ala His Gln Trp Phe Gly Asn Leu Val Thr Met Glu Trp Trp Asn Asp Leu Trp Leu Asn Glu Gly Phe Ala Lys Phe Met Glu Phe 375 Val Ser Val Ser Val Thr His Pro Glu Leu Lys Val Gly Asp Tyr Phe 390 Phe Gly Lys Cys Phe Asp Ala Met Glu Val Asp Ala Leu Asn Ser Ser 410 His Pro Val Ser Thr Pro Val Glu Asn Pro Ala Gln Ile Arg Glu Met 420 425 Phe Asp Asp Val Ser Tyr Asp Lys Gly Ala Cys Ile Leu Asn Met Leu 440 Arg Glu Tyr Leu Ser Ala Asp Ala Phe Lys Ser Gly Ile Val Gln Tyr 455 Leu Gln Lys His Ser Tyr Lys Asn Thr Lys Asn GluAsp Leu Trp Asp 475

Ser Met Ala Ser Ile Cys Pro Thr Asp Gly Val Lys Gly Met Asp Gly 490 Phe Cys Ser Arg Ser Gln His Ser Ser Ser SerSer His Trp His Gln 505 Glu Gly Val Asp Val Lys Thr Met Met Asn Thr Trp Thr Leu Gln Arg Gly Phe Pro Leu Ile Thr Ile Thr Val Arg Gly Arg Asn ValHis Met 535 Lys Gln Glu His Tyr Met Lys Gly Ser Asp Gly Ala Pro Asp Thr Gly 550 Tyr Leu Trp His Val Pro Leu Thr Phe Ile Thr Ser Lys Ser Asp Met 565 570 Val His Arg Phe Leu Leu Lys Thr Lys Thr Asp Val Leu Ile Leu Pro Glu Glu Val Glu Trp Ile Lys Phe Asn Val Gly Met Asn Gly Tyr Tyr Ile Val His Tyr Glu Asp Asp Gly Trp Asp Ser Leu Thr Gly Leu Leu Lys Gly Thr His Thr Ala Val Ser Ser Asn Asp Arg Ala Ser Leu Ile Asn Asn Ala Phe Gln Leu Val Ser Ile Gly Lys Leu Ser Ile Glu Lys Ala Leu Asp Leu Ser Leu Tyr Leu Lys His Glu Thr Glu Ile Met Pro 665 Val Phe Gln Gly Leu Asn Glu Leu Ile Pro Met Tyr Lys Leu Met Glu Lys Arg Asp Met Asn Glu Val Glu Thr Gln Phe Lys Ala Phe Leu Ile Arg Leu Leu Arg Asp Leu Ile Asp Lys Gln Thr Trp Thr Asp Glu Gly Ser Val Ser Glu Arg Met Leu Arg Ser Glu Leu Leu Leu Ala Cys Val His Asn Tyr Gln Pro Cys Val Gln Arg Ala Glu Gly Tyr Phe Arg 745 Lys Trp Lys Glu Ser Asn Gly Asn Leu Ser Leu Pro Val Asp Val Thr Leu Ala Val Phe Ala Val Gly Ala Gln Ser Thr Glu Gly Trp Asp Phe 775 780

Leu Tyr Ser Lys Tyr Gln Phe Ser Leu Ser Ser Thr Glu Lys Ser Gln 785 790 795 800

Ile Glu Phe Ala Leu Cys Arg Thr Gln Asn Lys Glu Lys Leu Gln Trp 805 810 815

Leu Leu Asp Glu Ser Phe Lys Gly Asp Lys Ile Lys Thr Gln Glu Phe 820 825 830

Pro Gln Ile Leu Thr Leu Ile Gly Arg Asn Pro Val Gly Tyr Pro Leu 835 840 845

Ala Trp Gln Phe Leu Arg Lys Asn Trp Asn Lys Leu Val Gln Lys Phe 850 855 860

Glu Leu Gly Ser Ser Ser Ile Ala His Met Val Met Gly Thr Thr Asn 865 870 875 880

Gln Phe Ser Thr Arg Thr Arg Leu Glu Glu Val Lys Gly Phe Phe Ser 885 890 895

Ser Leu Lys Glu Asn Gly Ser Gln Leu Arg Cys Val Gln Gln Thr Ile $900 \hspace{1.5cm} 905 \hspace{1.5cm} 910$

Glu Thr Ile Glu Glu Asn Ile Gly Trp Met Asp Lys Asn Phe Asp Lys 915 920 925

Ile Arg Val Trp Leu Gln Ser Glu Lys Leu Glu Arg Met 930 935 940

<210> 340

<211> 53

<212> PRT

<213> Homo sapiens

<400> 340

Met Leu Val Leu Met Thr Thr Cys Ile Leu Ala Ala Val Cys Val His 1 5 10 15

Thr Ala Gln Cys Ala Pro Asp Ser Arg Met Asp Asn Asp Cys Pro Ser 20 25 30

His Gln Ala Gln Ile His Phe Arg Ala Ser Glu Val Arg Arg Gly Trp $35 \hspace{1cm} 40 \hspace{1cm} 45$

Thr Phe Asn His Asp 50

<210> 341

<211> 578

<212> PRT

<213> Homo sapiens

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<220>
<221> SITE
<222> (326)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (342)
<223> Xaa equals any of the maturally occurring L-amino acids
<220>
<221> SITE
<222> (444)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 341
Met Pro Phe Arg Leu Leu Ile Pro Leu Gly Leu Leu Cys Ala Leu Leu
Pro Gln His His Gly Ala Pro Gly Pro Asp Gly Ser Ala Pro Asp Pro
Ala His Tyr Arg Glu Arg Val Lys Ala Met Phe Tyr His Ala Tyr Asp
Ser Tyr Leu Glu Asn Ala Phe Pro Phe Asp Glu Leu Arg Pro Leu Thr
Cys Asp Gly His Asp Thr Trp Gly Ser Phe Ser Leu Thr Leu Ile Asp
Ala Leu Asp Thr Leu Leu Ile Leu Gly Asn Val Ser Glu Phe Gln Arg
                 85
Val Val Glu Val Leu Gln Asp Ser Val Asp Phe Asp Ile Asp Val Asn
                                105
Ala Ser Val Phe Glu Thr Asn Ile Arg Val Val Gly Leu Leu Ser
Ala His Leu Leu Ser Lys Lys Ala Gly Val Glu Val Glu Ala Gly Trp
                        135
Pro Cys Ser Gly Pro Leu Leu Arg Met Ala Glu Glu Ala Ala Arg Lys
145
Leu Leu Pro Ala Phe Gln Thr Pro Thr Gly Met Pro Tyr Gly Thr Val
                                    170
Asn Leu Leu His Gly Val Asn Pro Gly Glu Thr Pro Val Thr Cys Thr
            180
                                185
Ala Gly Ile Gly Thr Phe Ile Val Glu Phe Ala Thr Leu Ser Ser Leu
                            200
```

Thr Gly Asp Pro Val Phe Glu Asp Val Ala Arg Val Ala Leu Met Arg

	210					215					220				
Leu 225	Trp	Glu	Ser	Arg	Ser 230	Asp	Ile	Gly	Leu	Val 235	Gly	Asn	His	Ile	Asp 240
Val	Leu	Thr	Gly	Lys 245	Trp	Val	Ala	Gln	Asp 250	Ala	Gly :	Ile (Gly A	Ala (255	Gly
Val	Asp	Ser	Tyr 260	Phe	Glu	Tyr	Leu	Val 265	Lys	Gly	Ala	Ile	Leu 270	Leu	Gln
Asp	Lys	Lys 275	Leu	Met	Ala	Met	Phe 280	Leu	Glu	Tyr	Asnl	Lys <i>i</i> 285	Ala :	Ile A	Arg
Asn	Tyr 290	Thr	Arg	Phe	Asp	Asp 295	Trp	Tyr	Leu	Trp	Val 300	Gln	Met	Tyr	Lys
Gly 305	Thr	Val	Ser	Met	Pro 310	Val	Phe	Gln	Ser	Leu 315	Glu	Ala	Tyr	Trp	Pro 320
Gly	Leu	Gln	Ser	Leu 325	Xaa	Gly	Asp	Ile	Asp 330	Asn	Ala	Met	Arg	Thr 335	Phe
Leu	Asn	Tyr	Tyr 340	Thr	Xaa	Trp	Lys	Gln 345	Phe	Gly	Gly	Leu	Pro 350	Glu	Phe
Tyr	Asn	Ile 355	Pro	Gln	Gly	Tyr	Thr 360	Val	Glu	Lys	Arg	Glu 365	Gly	Tyr	Pro
Leu	Arg 370	Pro	Glu	Leu	Ile	Glu 375	Ser	Ala	Met	Tyr	Leu 380	Tyr	Arg	Ala	Thr
Glỳ 385	Asp	Pro	Thr	Leu	Leu 390	Glu	Leu	Gly	Arg	Asp 395	Ala	Val	Glu	Ser	Ile 400
Glu	Lys	Ile	Ser	Lys 405	Val	Glu	Cys	Gly	Phe 410	Ala	Thr	Ile	Lys	Asp 415	Leu
Arg	Asp	His	Lys 420	Leu	Asp	Asn	Arg	Met 425	Glu	Ser	Phe	Phe	Leu 430	Ala	Glu
Thr	Val	Lys 435	Tyr	Leu	Tyr	Leu	Leu 440	Phe	Asp	Pro	Xaa	Asn 445	Phe	Ile	His
Asn	Asn 450	Gly	Ser	Thr	Phe	Asp 455	Ala	Val	Ile	Thr	Pro 460	Tyr	Gly	Glu	Cys
Ile 465	Leu	Gly	Ala	Gly	Gly 470	Tyr	Ile	Phe	Asn	Thr 475	Glu	Ala	His	Pro	Ile 480
Asp	Pro	Ala	Ala	Leu 485	His	Cys	Cys	Gln	Arg 490	Leu	Lys	Glu	Glu	Gln 495	
Glu	Val	Glu	Asp 500	Leu	Met	Arg	Glu	Phe 505	Tyr	Ser	Leu	Lys	Arg 510	Ser	Arg

Ser Lys Phe Gln Lys Asn Thr Val Ser Ser Gly Pro Trp Glu Pro Pro

```
515
                            520
                                                525
Ala Arg Pro Gly Thr Leu Phe Ser Pro Glu Asn His Asp Gln Ala Arg
                        535
Glu Arg Lys Pro Ala Lys Gln Lys Val Pro Leu Leu Ser Cys Pro Ser
                                        555
Gln Pro Phe Thr Ser Lys Leu Ala Leu Leu Gly Gln Val Phe Leu Asp
                565
                                    570
Ser Ser
<210> 342
<211> 40
<212> PRT
<213> Homo sapiens
<400> 342
Met Gly Pro Ser Gln Arg Glu Val Thr Val Gln Trp His Arg Ala Leu
Phe Leu Leu Pro Leu Leu Leu Ser Thr Arg Thr Glu Thr Lys Asn
Phe Gly Phe Lys Trp Leu Lys Asp
         35
<210> 343
<211> 484
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (322)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (345)
<223> Xaa equals any of the naturally occurring Lamino acids
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<223> Xaa equals any of the naturally occurring Lamino acids

5

Met Val Ala Thr Val Cys Gly Leu Leu Val Phe Leu Ser Leu Gly Leu

<220> <221> SITE <222> (374)

<400> 343

10

15

- Val Pro Pro Val Arg Cys Leu Phe Ala Leu Ser Val Pro Thr Leu Gly
 20 25 30
- Met Glu Gln Gly Arg Arg Leu Leu Ser Tyr Ser Thr Ala Thr Leu 35 40 45
- Ala Ile Ala Val Val Pro Asn Val Leu Ala Asn Val Gly Ala Ala Gly 50 55 60
- Gln Val Leu Arg Cys Val Thr Glu Gly Ser Leu Glu Ser Leu Leu Asn
 65 70 75 80
- Thr Thr His Gln Leu His Ala Ala Ser Arg Ala Leu Gly Pro Thr Gly 85 90 95
- Gln Ala Gly Ser Arg Gly Leu Thr Phe Glu Ala Gln Asp Asn Gly Ser 100 105 110
- Ala Phe Tyr Leu His Met Leu Thr Val Thr Gln Gln Val Leu Glu Asp 115 120 125
- Phe Ser Gly Leu Glu Ser Leu Ala Arg Ala Ala Leu Gly Thr Gln 130 135 140
- Arg Val Val Thr Gly Leu Phe Met Leu Gly Leu Leu Val Glu Ser Ala 145 150 155 160
- Trp Tyr Leu His Cys Tyr Leu Thr Asp LeuArg Phe Asp Asn Ile Tyr 165 170 175
- Ala Thr Gln Gln Leu Thr Gln Arg Leu Ala Gln Ala Gln Ala Thr His 180 185 190
- Leu Leu Ala Pro Pro Pro Thr Trp Leu Leu GlnAla Ala Gln Leu Arg 195 200 205
- Leu Ser Gln Glu Glu Leu Leu Ser Cys Leu Leu Arg Leu Gly Leu Leu 210 225 220
- Ala Leu Leu Leu Val Ala Thr Ala Val Ala Val Ala Thr Asp His Val 225 230 235 240
- Ala Phe Leu Leu Ala Gln Ala Thr Val Asp Trp Ala Gln Lys Leu Pro 245 250 255
- Thr Val Pro Ile Thr Leu Thr Val Lys Tyr Asp Val Ala Tyr ThrVal 260 265 270
- Leu Gly Phe Ile Pro Phe Leu Phe Asn Gln Leu Ala Pro Glu Ser Pro 275 280 285
- Phe Leu Ser Val His Ser Ser Tyr Gln Trp Glu Leu Arg Leu Thr Ser 290 295 300
- Ala Arg Cys Pro Leu Leu Pro Ala Arg Arg Pro Arg Ala Ala Ala Pro 305 310 315 320

```
Leu Xaa Ala Gly Gly Leu Gln Leu Leu Ala Gly Ser Thr Val Leu Leu 325 330 335
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Glu Gly Tyr Ala Arg Arg Leu Arg Xaa Ala Ile Ala Ala Ser Phe Phe 340 345 350

Thr Ala Gln Glu Ala Arg Arg Ile Arg His Leu His Ala Arg Leu Gln 355 360 365

Arg Arg His Asp Arg Xaa Gln Gly Gln Gln Leu Pro Leu Gly Asp Pro 370 380

Ser Cys Val Pro Thr Pro Arg Pro Ala Cys Lys Pro Pro Ala Trp Ile 385 390 395 400

Ala Tyr Arg Leu Asp Ala Leu Arg Thr Glu Ser Ser Glu Gly Glu Gly 405 410 415

Lys Glu Leu Trp Ser Cys Arg Asp Leu Ser Cys His Leu Gly Pro Val 420 425 430

Pro Pro Cys Val Thr Leu Gly Lys Ser Leu His Leu Ser Glu Pro 435 440 445

Arg Phe Leu His Leu His Asn Asp Ser Ile Phe Thr Ile Asp Val Thr 450 455 46

Tyr Phe Pro Arg Arg Asp Val Val Arg Met Glu Gly Asn Thr Gly His 465 470 475 480

Asp Arg Pro Gly

<210> 344

<211> 242

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring bamino acids

<220>

<221> SITE

<222> (139)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 344

Met Glu Gln Ala Arg Lys Ser Ser Thr Val Ser Leu Leu Ile Thr Val $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Leu Phe Ala Val Ala Phe Ser Val Leu Leu Leu Ser Cys Lys Asp His
20 25 30

Val Gly Tyr Ile Phe Thr Thr Asp Arg Asp Ile Ile Asn Leu Val Ala $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gln Val Val Pro Ile Tyr Ala Val Ser His Leu Phe Glu Ala Leu Ala 50 55 60

Cys Thr Ser Gly Gly Val Leu Arg Gly Ser Gly Asn Gln Lys Val Gly 65 70 75 80

Ala Ile Val Asn Thr Ile Gly Xaa Tyr Val Val Gly Leu Pro Ile Gly 85 90 95

Ile Ala Leu Met Phe Ala Thr Thr Leu Gly Val Met Gly Leu Trp Ser 100 105 110

Gly Ile Ile Cys Thr Val Phe Gln Ala Val Cys Phe Leu Gly Phe $115 \\ 120 \\ 125$

Ile Ile Gln Leu Asn Trp Lys Lys Ala Cys Xaa Gln Ala Gln Val His 130 135 140

Ala Asn Leu Lys Val Asn Asn Val Pro Arg Ser Gly Asn Ser Ala Leu 145 150 155 160

Pro Gln Asp Pro Leu His Pro Gly Cys Pro Glu Asn Leu Glu Gly Ile 165 170 175

Leu Thr Asn Asp Val Gly Lys Thr Gly Glu Pro Gln Ser Asp Gln Gln 180 185 190

Met Arg Gln Glu Glu Pro Leu Pro Glu His Pro Gln Asp Gly Ala Lys 195 200 205

Leu Ser Arg Lys Gln Leu Val Leu Arg Arg Gly Leu Leu Leu Gly 210 215

Val Phe Leu Ile Leu Leu Val Gly Ile Leu Val Arg Phe Tyr Val Arg 225 230 235 240

Ile Gln

<210> 345

<211> 48

<212> PRT

<213> Homo sapiens

<400> 345

Met Phe Ala Pro Cys Phe Val Asn Leu Ala Leu Phe Tyr Leu Tyr Ile 1 5 10 15

Asn Ser Cys Asn Leu Leu Asn Leu Thr Ser Ile Asp Pro Phe Gln Gln 20 25 30

Lys Gly Lys Phe Lys Met Gln Thr Leu Leu Phe Ala Lys Glu Asp Ser

35 40 45

<210> 346

<211> 51

<212> PRT

<213> Homo sapiens

<400> 346

Met Lys Val Val Val Met Val Val Ile Leu Val Val Val Thr Leu

1 5 10 15

Val Val Val Met Val Val Ile Leu Val Met Val Met Val Val Val 20 \$25\$ 30

Ala Leu Val Thr Leu Thr Trp Gly Pro Val Ala Val Thr Val Asp Ala 35 40 45

Gly Ser Trp 50

<210> 347

<211> 802

<212> PRT

<213> Homo sapiens

<400> 347

Met Leu Gly Ala Arg Ala Trp Leu Gly Arg Val Leu Au Leu Pro Arg

1 10 15

Ala Gly Ala Gly Leu Ala Ala Ser Arg Arg Cys Pro Gly Val Trp Pro 20 25 30

Arg Thr Trp Pro His Arg Ser Pro Ser Arg Gly Ser Ser 6r Arg Asp 35 40 45

Lys Asp Arg Ser Ala Thr Val Ser Ser Ser Val Pro Met Pro Ala Gly 50 55 60

Gly Lys Gly Ser His Pro Ser Ser Thr Pro Gln Arg Val Pro Asn Arg 65 70 75 80

Leu Ile His Glu Lys Ser Pro Tyr Leu Leu Gln His Ala Tyr Asn Pro 85 90 95

Val Asp Trp Tyr Pro Trp Gly Gln Glu Ala Phe Asp Lys Ala Arg Lys
100 105 110

Glu Asn Lys Pro Ile Phe Leu Ser Val Gly Tyr Ser Thr Cys His Trp 115 120 125 Cys His Met Met Glu Glu Glu Ser Phe Gln Asn Glu Glu Ile Gly Arg Leu Leu Ser Glu Asp Phe Val Ser Val Lys Val Asp Arg Glu Glu Arg 155 Pro Asp Val Asp Lys Val Tyr Met Thr Phe Val Gln Ala Thr Ser Ser 170 Gly Gly Gry Pro Met Asn Val Trp Leu Thr Pro Asn Leu Gln Pro 185 Phe Val Gly Gly Thr Tyr Phe Pro Pro Glu Asp Gly Leu Thr Arg Val Gly Phe Arg Thr Val Leu Leu Arg Ile Arg Glu Gln Trp Lys Gln Asn Lys Asn Thr Leu Leu Glu Asn Ser Gln Arg Val Thr Thr Ala Leu Leu 235 Ala Arg Ser Glu Ile Ser Val Gly Asp Arg Gln Leu Pro Pro Ser Ala Ala Thr Val Asn Asn Arg Cys Phe Gln Gln Leu Asp Glu Gly Tyr Asp Glu Glu Tyr Gly Gly Phe Ala Glu Ala Pro Lys Phe Pro Thr Pro Val 280 Ile Leu Ser Phe Leu Phe Ser Tyr Trp Leu Ser His Arg Leu Thr Gln 295 Asp Gly Ser Arg Ala Gln Gln Met Ala Leu His Thr Leu Lys Met Met 315 310 Ala Asn Gly Gly Ile Arg Asp His Val Gly Gln Gly Phe His Arg Tyr Ser Thr Asp Arg Gln Trp His Val Pro His Phe Glu Lys Met Leu Tyr 345 Asp Gln Ala Gln Leu Ala Val Ala Tyr Ser Gln Ala Phe Gln Leu Ser Gly Asp Glu Phe Tyr Ser Asp Val Ala Lys Gly Ile Leu Gln Tyr Val 375 Ala Arg Ser Leu Ser His Arg Ser Gly Gly Phe Tyr Ser Ala Glu Asp 395 Ala Asp Ser Pro Pro Glu Arg Gly Gln Arg Pro Lys Glu Gly Ala Tyr 410 Tyr Val Trp Thr Val Lys Glu Val Gln Gln Leu Leu Pro Glu Pro Val 420 425

- Leu Gly Ala Thr Glu Pro Leu Thr Ser Gly Gln Leu Leu Met Lys His 435 440 445
- Tyr Gly Leu Thr Glu Ala Gly Asn Ile Ser Pro Ser Gln Asp Pro Lys 450 455 460
- Gly Glu Leu Gln Gly Gln Asn Val Leu Thr Val Æg Tyr Ser Leu Glu 465 470 475 480
- Leu Thr Ala Ala Arg Phe Gly Leu Asp Val Glu Ala Val Arg Thr Leu 485 490 495
- Leu Asn Ser Gly Leu Glu Lys Leu Phe Gln Aa Arg Lys His Arg Pro 500 505 510
- Lys Pro His Leu Asp Ser Lys Met Leu Ala Ala Trp Asn Gly Leu Met 515 520 525
- Val Ser Gly Tyr Ala Val Thr Gly Ala Val Leu Gly Gln Δ p Arg Leu 530 540
- Ile Asn Tyr Ala Thr Asn Gly Ala Lys Phe Leu Lys Arg His Met Phe545550555560
- Asp Val Ala Ser Gly Arg Leu Met Arg Thr Cys Tyr Thr Gly Pro Ey
 565 570 575
- Gly Thr Val Glu His Ser Asn Pro Pro Cys Trp Gly Phe Leu Glu Asp 580 585 590
- Tyr Ala Phe Val Val Arg Gly Leu Leu Asp Leu Tyr Glu Ala Ser Gln 595 600 605
- Glu Ser Ala Trp Leu Glu Trp Ala Leu Arg Leu Gln Asp Thr Gln Asp 610 620
- Arg Leu Phe Trp Asp Ser Gln Gly Gly Gly Tyr Phe Cys Ser Glu Ala 625 630 635 640
- Glu Leu Gly Ala Gly Leu Pro Leu Arg Leu Lys Asp Asp Gln Asp Gly 645 650 655
- Ala Glu Pro Ser Ala Asn Ser Val Ser Ala His Asn Leu Leu Arg Leu 660 665 670
- His Gly Phe Thr Gly His Lys Asp Trp Met Asp Lys Cys Val Cys Leu 675680 685
- Leu Thr Ala Phe Ser Glu Arg Met Arg Arg Val Pro Val Ala Leu Pro 690 695 700
- Glu Met Val Arg Ala Leu Ser Ala Gln Gln Gln Thr Leu Lys Gln Ile 705 710 715 720
- Val Ile Cys Gly Asp Arg Gln Ala Lys Asp Thr Lys Ala Leu Val Gln
 725 730 735

Cys Val His Ser Val Tyr Ile Pro Asn Lys Val Leu Ile Leu Ala Asp $740 \hspace{1.5cm} 745 \hspace{1.5cm} 750$

Gly Asp Pro Ser Ser Phe Leu Ser Arg Gln Leu Pro Phe Leu Ser Thr 755 760 765

Leu Arg Arg Leu Glu Asp Gln Ala Thr Ala Tyr Val Cys Glu Asn Gln 770 780

Ala Cys Ser Val Pro Ile Thr Asp Pro Cys Glu Leu Arg Lys Leu Leu 785 790 795 800

His Pro

<210> 348

<211> 331

<212> PRT

<213> Homo sapiens

<400> 348

Met Leu Thr Gly Ile Ala Val Gly Ala Leu Leu Ala Leu Val 1 5 10 15

Gly Val Leu Ile Leu Phe Met Phe Arg Arg Leu Arg Gln Phe Arg Gln 20 25 30

Ala Gln Pro Thr Pro Gln Tyr Arg Phe Arg Lys Arg Asp Lys Val Met 35 40 45

Phe Tyr Gly Arg Lys Ile Met Arg Lys Val Thr Thr Eu Pro Asn Thr 50 60

Leu Val Glu Asn Thr Ala Leu Pro Arg Gln Arg Ala Arg Lys Arg Thr 65 70 75 80

Lys Val Leu Ser Leu Ala Lys Arg Ile Leu Arg Phe Lys Lys Eu Tyr 85 90 95

Pro Ala Leu Gln Pro Lys Glu Pro Pro Pro Ser Leu Leu Glu Ala Asp 100 105 110

Leu Thr Glu Phe Asp Val Lys Asn Ser His Leu Pro Ser Glu Val 極知 115 120 125

Tyr Met Leu Lys Asn Val Arg Val Leu Gly His Phe Glu Lys Pro Leu 130 140

Phe Leu Glu Leu Cys Lys His Ile Val Phe Val Gln Leu Gln Glu Gly 145 150 155 160

Glu His Val Phe Gln Pro Arg Glu Pro Asp Pro Ser Ile Cys Val Val 165 170 175

Gln Asp Gly Arg Leu Glu Val Cys Ile Gln Asp Thr Asp Gly Thr Glu

180 185 190

Val Val Lys Glu Val Leu Ala Gly Asp Ser Val His Ser Leu Leu 195 200 205

Ser Ile Leu Asp Ile Ile Thr Gly His Ala Ala Pro Tyr Lys Thr Val 210 215 220

Ser Val Arg Ala Ala Ile Pro Ser Ser Ile Leu Arg Leu Pro Ala Ala 225 230 235 240

Ala Phe His Gly Val Phe Glu Lys Tyr Pro Glu Thr Leu Val Arg Val \$245\$ \$250\$ \$255\$

Val Gln Ile Ile Met Val Arg Leu Gln Arg Val Thr Phe Leu Ala Leu 260 265 270

His Asn Tyr Leu Gly Leu Thr Thr Glu Leu Phe Asn Ala Glu Ser Gln 275 280 285

Ala Ile Pro Leu Val Ser Val Ala Ser Val Ala Ala Gly Lys Ala Lys 290 295 300

Lys Gln Val Phe Tyr Gly Glu Glu Glu Arg Leu Lys Lys Pro Pro Arg 305 310 315 320

Leu Gln Glu Ser Cys Asp Ser Asp His Gly Gly

<210> 349

<211> 50

<212> PRT

<213> Homo sapiens

<400> 349

Met Tyr Ser Leu Val Leu Thr Phe Leu Val Ser Phe Cys Ala Leu Ser 1 5 10 15

Lys Thr Phe Leu Asp His Trp Phe Gln Met Phe Ile Tyr Tyr Ile Leu 20 25 30

Phe Lys Asp Ser Glu Ile Gly Phe Cys His Pro Leu Leu Tyr Val Leu 35 40 45

Phe His 50

<210> 350

<211> 80

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 350

Met Thr His Cys Leu Leu His Gly Met Gly Xa Ala Gly Ala Ala Ser 1 5 10 15

Leu Thr Pro Lys Pro Met Ser Leu Ile Ser Ala Tyr Cys Gly Gly Leu 20 25 30

Trp Leu Ala Ala Val Ala Val Met Val Gln Met Ala Ala Leu Cys Gly 35 40 45

Ala Gln Asp Ile Gln Asp Lys Phe Ser Ser Ile Leu Ser Arg Gly Gln 50 55 60

Glu Ala Tyr Glu Arg Leu Leu Trp Asn Gly Glu Phe Gly Glu Pro Lys
65 70 75 80

<210> 351

<211> 250

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (114)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 351

Met Phe Leu Ala Thr Leu Ser Phe Leu Leu Pro Phe Ala His Pro Phe $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Gly Thr Val Ser Cys Glu Tyr Met Leu Gly Ser Pro Leu Ser Ser Leu 20 25 30

Ala Gl
n Val Asn Leu Ser Pro Phe Ser His Pro Lys Val His Met Asp
 $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45 \hspace{1.5cm}$

Pro Asn Tyr Cys His Pro Ser Thr Ser Leu His Leu Cys Ser Leu Ala 50 60

Trp Ser Phe Thr Arg Leu Leu His Pro ProLeu Ser Pro Gly Ile Ser 65 70 75 80

Gln Val Val Lys Asp His Val Thr Lys Pro Thr Ala Met Ala Gln Gly 85 90 95

Arg Val Ala His Leu Ile Glu Trp LysGly Trp Ser Lys Pro Ser Asp 100 105 110

```
Ser Xaa Ala Ala Leu Glu Ser Ala Phe Ser Ser Tyr Ser Asp Leu Ser Glu Gly Glu Gln Glu Ala Arg 135 Phe Ala Ala Gly ValAla Glu Gln Phe 130 Ala Ile Ala Glu Ala Lys Leu Arg Ala Trp Ser Ser Val Asp Gly Glu 145 For Glu Glo Asp Ser Thr Asp Asp Ser Tyr Asp Glu Asp 165 Asp Leu Gly Leu Gly Leu Trp Trp Thr His Leu Ile 180 Asp Leu Gly Ile Leu Ser Glu Pro His Pro Glu His Ser Gln ProLeu
```

195 200 205

Gln Gly Glu Gly Glu Gly Gln Thr Gln Ser Arg Gln Ala Trp Thr Leu

210 215 220

Gln Gly Gln Glu Gly Cys Pro His Ser Trp Val Gly Asn Glu Gln Thr 225 230 235 240

Glu Met Asp Ser Phe Leu Ser His Arg Cys 245 250

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<210> 352
<211> 309
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (129)
<223> Xaa equals any of the naturally occurring I-amino acids
<220>
<221> SITE
<222> (178)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (187)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (262)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (308)
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<223> Xaa equals any of the naturally occurring Lamino acids <400> 352 Met Phe Thr Ile Lys Leu Leu Phe Ile Val Pro Leu Val Ile Ser 10 Ser Arg Ile Asp Gln Asp Asn Ser Ser Phe Asp Ser Leu Ser Pro Glu Pro Lys Ser Arg Phe Ala Met Leu Asp Asp Val Lys Ile Leu Ala Asn Gly Leu Leu Gln Leu Gly His Gly Leu Lys Asp Phe Val His Lys Thr Lys Gly Gln Ile Asn Asp Ile Phe Gln Lys Leu Asn Ile Phe Asp Gln Ser Phe Tyr Asp Leu Ser Leu Gln Thr Ser Glu Ile Lys Glu Glu Glu Lys Glu Leu Arg Arg Thr Thr Tyr Lys Leu Gln Val Lys Asn Glu Glu 105 Val Lys Asn Met Ser Leu Glu Leu Asn Ser Lys Leu Glu Ser Leu Leu 115 Xaa Glu Lys Ile Leu Leu Gln Gln Lys Val Lys Tyr Leu Glu Glu Gln 135 Leu Thr Asn Leu Ile Gln Asn Gln Pro Glu Thr Pro Glu His Pro Glu 150 Val Thr Ser Leu Lys Thr Phe Val Glu Lys Gln Asp Asn Ser Ile Lys Asp Xaa Leu Gln Thr Val Glu Asp Gln Tyr Xaa Gln Leu Asn Gln Gln 185 His Ser Gln Ile Lys Glu Ile Glu Asn Gln Leu Arg Arg Thr Ser Ile 200 Gln Glu Pro Thr Glu Ile Ser Leu Ser Ser Lys Pro Arg Ala Pro Arg Thr Thr Pro Phe Leu Gln Leu Asn Glu Ile Arg Asn Val Lys His Asp 230 235 Gly Ile Pro Ala Glu Cys Thr Thr Ile Tyr Asn Arg Gly Glu His Thr Ser Gly Met Tyr Ala Xaa Arg Pro Ser Asn Ser Gln Val Phe His Val 265 Tyr Cys Asp Val Ile Ser Gly Ser Pro Trp Thr Leu Ile Gln His Arg 280 275

Ile Asp Gly Ser Gln Asn Phe Asn Glu Thr Trp Glu Asn Tyr Lys Tyr 290 295 300

Gly Phe Gly Xaa Ala 305

<210> 353

<211> 53

<212> PRT

<213> Homo sapiens

<400> 353

Met Cys Leu Ser Leu Thr Ser Ile His Ile His Pro Thr Ser Leu Leu

1 5 10 15

Leu Gln Ser Phe Ile Val Ile Phe Ser Leu Met Leu Glu Ser Phe Ad 20 25 30

Phe Ser Ser Cys Ser His Cys Leu Lys Phe Cys Glu Leu Leu Arg Lys 35 40 45

Ser Leu Val Lys Val 50

<210> 354

<211> 129

<212> PRT

<213> Homo sapiens

<400> 354

Met Ala Arg Gly Ser Leu Arg Arg Leu Leu Arg Leu Leu Val Leu Gly
1 5 10 15

Leu Trp Leu Ala Leu Leu Arg Ser Val Ala Gly Glu Gln Ala Pro Gly 20 25 30

Thr Ala Pro Cys Ser Arg Gly Ser Ser Trp Ser Ala Asp Leu Asp Lys 35 40 45

Cys Met Asp Cys Ala Ser Cys Arg Ala Arg Pro His Ser Asp Phe Cys 50 6

Leu Gly Cys Ala Ala Ala Pro Pro Ala Pro Phe Arg Leu Leu Trp Pro
65 70 75 80

Ile Leu Gly Gly Ala Leu Ser Leu Thr Phe Val Leu Gly Leu Leu Ser

Gly Phe Leu Val Trp Arg Arg Cys Arg Arg Glu Lys Phe Thr Thr

Pro Ile Glu Glu Thr Gly Gly Glu Gly Cys Pro Ala Val Ala Leu Ile 115 120 125 Gln

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<210> 355
<211> 71
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (22)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (57)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (70)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 355
Met Ser Leu Leu Pro Pro Leu Ala Leu Leu Leu Leu Ala Ala
                                     10
Leu Val Xaa Pro Ala Xaa Ala Ala Thr Ala Tyr Arg Pro Asp Trp Asn
Arg Leu Ser Gly Leu Thr Arg Ala Arg Val Glu Thr Cys GlyGly Met
                             40
Thr Ala Glu Pro Pro Lys Gly Glu Xaa Arg Leu Ser Ser Arg Arg Thr
Phe His Ser Ile Thr Xaa Trp
<210> 356
<211> 153
<212> PRT
<213> Homo sapiens
<400> 356
Met Ala Ala Thr Gln Thr Gly Thr Cys Leu Met Val Ala Ala Leu Cys
 1
                  5
                                      10
```

Phe Val Leu Val Leu Gly Ser Leu Val Pro Cys Leu Pro Glu Phe Ser 20 25 30

Ser Gly Ser Gln Thr Val Lys Glu Asp Pro Leu Ala Ala Asp Gly Val 35 40 45

Tyr Thr Ala Ser Gln Met Pro Ser Arg Ser Leu Leu Phe Tyr Asp Asp 50 55 60

Gly Ala Gly Leu Trp Glu Asp Gly Arg Ser Thr Leu Leu Pro Met Glu 65 70 75 80

Pro Pro Asp Gly Trp Glu Ile Asn Pro Gly Gly Pro Ala Glu Gln Arg
85 90 95

Pro Arg Asp His Leu Gln His Asp His Leu Asp Ser Thr His Glu Thr 100 105 110

Thr Lys Tyr Leu Ser Glu Ala Trp Pro Lys Asp Gly Gly Asn Gly Thr 115 120 125

Ser Pro Asp Phe Ser His Ser Lys Glu Trp Phe His Asp Arg Asp Leu 130 135 140

Gly Pro Asn Thr Thr Ile Lys Leu Ser 145

<210> 357

<211> 87

<212> PRT

<213> Homo sapiens

<400> 357

Met Thr Ala Trp Ile Leu Leu Pro Val Ser Leu Ser Ala Phe Ser Ile 1 5 10 15

Thr Gly Ile Trp Thr Val Tyr Ala Met Ala Val Met Asn His His Val 20 25 30

Cys Pro Val Glu Asn Trp Ser Tyr Asn Glu Ser Cys Pro Pro Asp Pro 35 40 45

Ala Glu Gln Gly Gly Pro Lys Thr Cys Cys Thr Leu Asp Asp Val Pro 50 55 60

Leu Ile Ser Gly Pro Asp Leu Pro Pro Ala Leu Arg Ala Ala Pro Gly 65 70 75 80

Ala Glu Ser Ala Leu Leu Gly 85

<210> 358

<211> 60

<212> PRT

<213> Homo sapiens

<400> 358

Met Ala Ala Val Met Leu Val Leu Thr Val Val Leu Gly Leu Tyr Asn 1 5 10 15

Ser Tyr Asn Ser Cys Ala Glu Gln Ala Asp Gly Pro Leu Gly Arg Ser 20 25 30

Thr Cys Ser Ala Ala Pro Gly Thr Pro Gly Gly Ala Gln Asp Ser Ser 35 40 45

Met Ser Ser Leu Gln Ser Ser Arg Lys Pro His Thr 50 55 60

<210> 359

<211> 352

<212> PRT

<213> Homo sapiens

<400> 359

Met Leu Cys Arg Leu Cys Trp Leu Val Ser Tyr Ser Leu Ala Val Leu 1 5 15

Leu Leu Gly Cys Leu Leu Phe Leu Arg Lys Ala Ala Lys Pro Ala Glu 20 25 30

Thr Pro Arg Pro Thr Ser Leu Ser Gly Ala Pro Pro Thr Pro Arg His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Arg Cys Pro Pro Asn His Thr Val Ser Ser Ala Ser Leu Ser Leu 50 55 60

Pro Ser Arg His Arg Leu Phe Leu Thr Tyr Arg His Cys Arg Asn Phe 65 70 75 80

Ser Ile Leu Leu Glu Pro Ser Gly Cys Ser Lys Asp Thr Phe Leu Leu 85 90 95

Leu Ala Ile Lys Ser Gln Pro Gly His Val Glu Arg Arg Ala Ala Ile 100 105 110

Arg Ser Thr Trp Gly Arg Trp Gly Asp Gly Leu Gly Pro Ala Leu Lys 115 120 125

Leu Val Phe Leu Leu Gly Val Ala Gly Ser Ala Pro Pro Ala Gln Leu 130 135 140

Leu Ala Tyr Glu Ser Arg Glu Phe Asp Asp Ile Leu Gln Trp Asp Phe 145 150 155 160

Thr Glu Asp Phe Phe Asn Leu Thr Leu Lys Glu Leu His Leu Gln Arg 165 170 175 Trp Val Val Ala Ala Cys Pro Gln Ala His Phe Met Leu Lys Gly Asp 180 185 190

Asp Asp Val Phe Val His Val Pro Asn Val Leu Glu Phe Leu Asp Gly 195 200 205

Trp Asp Pro Ala Gln Asp Leu Leu Val Gly Asp Val Ile Arg Gln Ala 210 215 220

Leu Pro Asn Arg Asn Thr Lys Val Lys Tyr Phe I♠ Pro Pro Ser Met 225 230 235

Tyr Arg Ala Thr His Tyr Pro Pro Tyr Ala Gly Gly Gly Tyr Val 245 250 255

Met Ser Arg Ala Thr Val Arg Arg Leu Gln Ah Ile Met Glu Asp Ala 260 265 270

Glu Leu Phe Pro Ile Asp Asp Val Phe Val Gly Met Cys Leu Arg Arg 275 280 285

Leu Gly Leu Ser Pro Met His His Ala Gly Phe Lys Thr Ph Gly Ile 290 295 300

Arg Arg Pro Leu Asp Pro Leu Asp Pro Cys Leu Tyr Arg Gly Leu Leu 305 310 315 320

Leu Val His Arg Leu Ser Pro Leu Glu Met Trp Thr Met Trp Ala Læ 325 330 335

Val Thr Asp Glu Gly Leu Lys Cys Ala Ala Gly Pro Ile Pro Gln Arg 340 345 350

<210> 360

<211> 47

<212> PRT

<213> Homo sapiens

<400> 360

Met Ser Leu Leu Leu Pro Pro Leu Ala Leu Leu Leu Leu Leu Ala Ala $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Leu Val Ala Pro Ala Thr Ala Ala Thr Ala Tyr Arg Pro Asp Trp Asn 20 25 6

Arg Leu Ser Gly Leu Thr Arg Ala Arg Val Glu Thr Cys Gly Gly 35 40 45

<210> 361

<211> 74

<212> PRT

<213> Homo sapiens

<400> 361

Met Val Leu Leu Leu Leu Leu Leu Gln Lys Ile Pro Gly Thr Pro 1 5 10 15

Leu Phe Gln Pro Gly Phe Leu Gly Trp Ala Gln Glu Ser Cys Gln Ile 20 25 30

Gln Ser Tyr Val Gly Ser Lys Leu Pro Leu Cys Cys Phe Cys Gln Ala 35 40 45

Arg Cys Gly His Ser Lys Phe Ile Cys Val Asn Lys Arg Lys Glu Glu 50 55 60

Pro Ser Gly Cys Asn Arg Thr Asp Ser Ser 65 70

<210> 362

<211> 45

<212> PRT

<213> Homo sapiens

<400> 362

Met Thr Ile His Ala Leu Leu Val Tyr Ala Cys Asn Ser Lys Cys Leu 1 5 10 15

Trp Phe Ser Ile Ser His Leu His Phe Cys Leu Val Thr Leu Leu Ile 20 25 30

Leu Thr Asn Met Thr Glu Ser Ser Phe Ser Leu Lys Gly

<210> 363

<211> 52

<212> PRT

<213> Homo sapiens

<400> 363

Met Ser Lys Ala Arg Phe Pro Phe Leu Ala Phe Pro Pro Leu Val Leu 1 5 10 15

Cys Leu Glu His Ser Gln Ala Ser Leu Gly Thr Arg Leu Pro Val Val 20 25 30

Thr Pro Ser Ser Leu Pro Ser Ser Cys Lys Gly Ile Gly Cys Gly Phe 35 40 45

Leu Glu Leu Gly 50 <210> 364

<211> 88

<212> PRT

<213> Homo sapiens

<400> 364

Met Trp Pro Ser Gln Val Pro Leu Leu Ala Phe Cys Phe Leu Leu Val 1 5 10 15

Lys Ser Thr Ser Asn Ile Asn Leu Pro Thr Pro Pro Pro Ser Ser Leu 20 25 30

Glu Asn Ser Ser Phe Val Val Ser Gln Arg Gly Asn Leu Ile Val Phe 35 40 45

Gly Gly Gln Lys Lys Ala Thr Phe Arg Tyr His Phe Tyr Leu Asp Arg
50 55 60

Met Pro Phe Tyr Ser Gln Ile Ser Val Tyr Phe Val Asn Gly Phe Arg 65 70 75 80

Val Asn Gly Tyr Leu Cys Asn Asn 85

<210> 365

<211> 131

<212> PRT

<213> Homo sapiens

<400> 365

Met Leu Trp Thr Leu Thr Phe Phe Leu Leu Gln Arg Ser Leu Thr Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Pro Trp Leu Phe Gly Leu Leu Phe Leu Gly Ser Ser Asn Thr Ala Val 20 25 30

Cys Cys Phe Leu Gly Gln Leu Ile Met Gly Pro Lys Gly Glu Arg Gly 35 40 45

Phe Pro Gly Pro Pro Gly Arg Cys Leu Cys Gly Pro Thr Met Asn Val 50 55 60

Asn Asn Pro Ser Tyr Gly Glu Ser Val Tyr Gly Pro Ser Ser Pro Arg 65 70 75 80

Val Pro Val Val Arg Leu Ser Gly Arg Ser Leu Gly Trp Leu Ser Val 85 90 95

Arg Thr Ser His Leu Ile Leu Met Gly Leu Cys Lys Ile Leu Ser Val 100 105 110

Lys Leu Thr Phe Phe His Asp Ser Glu Tyr Thr Leu Ile Ile Gly Asn 115 120 125 Trp Lys Ile 130

<210> 366

<211> 46

<212> PRT

<213> Homo sapiens

<400> 366

Met Leu Ser Pro Leu Asn His Leu Tyr Phe Pro Phe Arg Phe Leu Cys
1 5 10 15

Met Leu Cys Ser Leu Pro Arg Val Val Phe Gln Leu Thr Pro Ile Lys 20 25 30

Glu Ala Phe Pro Ser Gln Glu Leu Thr Phe Pro Cys Thr His 35 40 45

<210> 367

<211> 87

<212> PRT

<213> Homo sapiens

<400> 367

Trp Ala Ala Val Ile Leu Leu Arg Gly Ile Leu Gly Thr Val Ala Pro $20 \hspace{1cm} 25 \hspace{1cm} 30$

Pro Pro Cys Pro Cys Val Leu Asp Leu Ala Val Tyr Pro Leu His Leu 35 40 45

Pro Val Glu Ala Pro Cys Leu Glu Val Val Phe Lys Gln Lys Asn Gly 50 55 60

Lys Asp Asn Cys Leu Val Phe Tyr Pro Asp Pro Ile Pro Leu Arg Gly 65 70 75 80

Ser Leu Leu Gly Pro Phe Ile 85

<210> 368

<211> 34

<212> PRT

<213> Homo sapiens

<400> 368

Met Gln Ala Arg Trp Phe His Ile Leu Gly Met Met Phe Ile Trp $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ser Ser Ala His Gln Tyr Lys Cys Pro Cys Tyr Ser Arg Gln Ser Gln 20 25 30

Glu Lys

<210> 369

<211> 41

<212> PRT

<213> Homo sapiens

<400> 369

Met Val Lys Val Gly Ala Trp Arg Ala Val Gln Ile Leu Met LeuPhe 1 5 10 15

Ala Asn Pro Gly His Ala Glu Gly Ala Cys Ile Ser Pro Gly Pro Ala 20 25 30

Gly Lys Arg Glu Pro Leu Lys Leu Gly

<210> 370

<211> 162

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring bamino acids

<400> 370

Met Leu Ile Tyr Trp Leu Gln Ser Ser Phe Ile Leu Ser Ala Phe Val 1 5 10 15

Leu Ile Asn Ser Pro Val Thr Thr Gly Ile Gln Lys Ser Cys Cys Lys
20 25 30

Phe Phe Pro Val Ser Ile Asn Leu Cys Phe Ala Ser Leu His Arg Met 35 40 45

Lys Val Val Thr Leu Val Ala Leu Gln Trp Leu Asn Ile Ala Leu Arg 50 60

Ser Xaa Leu Glu Glu Val Gln Gln Ala Ala Asp Gly Met Thr Ile Lys 65 70 75 80

Gly Ser Lys Val Gln Val Ser Phe Cys Ala Pro Gly Ala Pro Gly Arg 85 90 95

Ser Thr Leu Ala Ala Leu Ile Ala Ala Gln Arg Val Met His Ser Asn 100 105 110 Gln Lys Gly Leu Leu Pro Glu Pro Asn Pro Val Gln Ile Met Lys Ser 115 120 125

Leu Asn Asn Pro Ala Met Leu Gln Val Leu Leu Gln Ala Pro Ser Tyr 130 135 140

Val Asp Glu Leu Leu Asn Gln Pro Phe Leu Glu His Leu Thr Ala Cys 145 150 155 160

His Ile

<210> 371

<211> 377

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (164)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (213)

<223> Xaa equals any of the naturally occurring Hamino acids

<400> 371

Met Ala Thr Ala Met Asp Trp Leu Pro Trp Ser Leu Leu Leu Phe Ser 1 5 10 15

Leu Met Cys Glu Thr Ser Ala Phe Tyr Val Pro Gly Val Ala Pro Ile 20 25 30

Asn Phe His Gln Asn Asp Pro Val Glu Ile Lys Ala Val Lys Leu Thr $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Ser Arg Thr Gln Leu Pro Tyr Glu Tyr Tyr Ser Leu Pro Phe Cys 50 55 60

Gln Pro Ser Lys Ile Thr Tyr Lys Ala Glu Asn Leu Gly Glu Val Leu 65 70 75 80

Arg Gly Asp Arg Ile Val Asn Thr Pro Phe Gln Val Leu Met Asn Ser 85 90 95

Glu Lys Lys Cys Glu Val Leu Cys Ser Gln Ser Asn Lys Pro Val Thr 100 105 10

Leu Thr Val Glu Gln Ser Arg Leu Val Ala Glu Arg Ile Thr Glu Asp 115 120 125

Tyr Tyr Val His Leu Ile Ala Asp Asn Leu Pro Val Ala Thr Arg Leu 130 135 140

- Glu Leu Tyr Ser Asn Arg Asp Ser Asp Asp Lys Lys Glu Ser Asp 145 150 155 160
- Ile Lys Trp Xaa Ser Arg Trp Asp Thr Tyr Leu Thr Met Ser Asp Val 165 170 175
- Gln Ile His Trp Phe Ser Ile Ile Asn Ser Val Val Val Phe Phe 180 185 190
- Leu Ser Gly Ile Leu Ser Met Ile Ile Ile Arg Thr Leu Arg Lys Asp 195 200 205
- Ile Ala Asn Tyr Xaa Lys Glu Asp Asp Ile Glu Asp Thr Met Glu Glu 210 215 220
- Ser Gly Trp Lys Leu Val His Gly Asp Val Phe Arg Pro Pro Pro Val 225 230 235 240
- Pro His Asp Pro Gln Leu Pro Ala Gly Leu Arg His Ser Ala Val Leu 245 250 255
- Tyr Asp Pro His Arg His Leu Cys Ser His Ala Trp Asp Ala Val Ala 260 265 270
- Leu Gln Pro Gly Ser Ser His Asp His Ser Leu Leu Pro Leu His Val 275 280 285
- His Gly Gly Val Trp Arg Ile Phe Cys Trp Pro Ser Val Pro His Phe 290 295 300
- Lys Arg Pro Ser Val Glu Glu Arg Ser Leu Leu Tyr Gly Am Ser Val 305 310 315 320
- Pro Trp Cys Gly Phe Trp His Leu Leu Arg Ile Glu Leu Leu His Leu 325 330 335
- Gly Lys Ala Leu Ile Arg Ser Gly Ala Leu Ser His His Gly Gly Ser 340 345 350
- Ala Val His Val Val Arg Asp Leu Pro Ala Pro Arg Leu Leu Gly Leu 355 360 365
- Leu Leu Arg Leu Pro Lys Ala Ala Ile 370 375

<400> 372

Met Tyr Leu Ile His Leu Tyr Gln Val Leu Lys Tyr Leu Asp Lys Ser

<210> 372

<211> 84

<212> PRT

<213> Homo sapiens

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Lys Tyr Phe Val Phe Ser Phe Phe Leu Leu Ser Ile LeuLeu Thr Thr 20 25 30
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Val Lys Arg Cys Ser Ile Leu Ile Trp Ser Val Leu Arg Arg Lys Thr 35 40 45

Met Lys Ala Glu Leu Val Cys Ala Thr Gln Ser Lys Pro Leu Leu Phe 50 60

Phe Trp Lys Asp Gly Val Met Phe Phe Lys Asp Ser Asn Lys Tyr Pro 65 70 75 80

Ala Val Ile Ser

```
<210> 373
<211> 42
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring I-amino acids
<220>
<221> SITE
<222> (22)
<223> Xaa equals any of the naturally occurring Hamino acids
<220>
<221> SITE
<222> (28)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring Lamino acids
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<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 373
Met Leu Phe Leu Val Phe Ser Leu Xaa Leu Leu Lys Pro Leu Xaa Phe
Phe Xaa Phe Gly Gly Xaa Arg Ile Val Asn Ile Xaa Xaa Xaa Gln Xaa
                                25
Gln His His Ala Glu Gly Lys Xaa Gly Ser
<210> 374
<211> 82
<212> PRT
<213> Homo sapiens
<400> 374
Met Asn Arg Ser Thr Arg Ser Tyr Arg Cys Trp Ala Thr Trp Pro Arg
                                     10
Leu Gly Trp Ala Leu Pro Cys Cys Met Asn Ser Leu Arg Lys Gly Arg
Lys Phe Ser Gln Ile Thr Thr Ser Leu Met Ala Ser Val Ser Ser Ala
Ser Met Val Ser Arg Arg Arg Pro Leu Pro Lys His Pro Val Thr
Thr Thr Ser Thr Ala Thr Ala Leu Leu Gly Thr Ser Ser Thr Trp Ser
Lys Ser
<210> 375
<211> 36
<212> PRT
<213> Homo sapiens
<400> 375
Met Val Phe Leu Leu Leu Leu Phe Gly Phe Phe Asp Gly Ser
               5
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<223> Xaa equals any of the naturally occurring Lamino acids

<220> <221> SITE <222> (32) Leu Arg Ser Pro Leu Leu Leu Ile Ile His Leu Gly Pro Ala Pro Thr 20 25 30

Phe Leu Gln Ile 35

<210> 376

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 376

Met Pro Val Leu Pro Gly Arg Thr Thr Ala Leu Leu Ser Leu Thr Leu 1 5 10 15

Ala Phe Ala Val Pro Cys Ser Gly Val Glu Ala Gly Pro Cys Val Pro 20 25 30

Arg Ser His Gly Cys Ser Ser Trp Glu Ala Ser Val Cys Val Thr Ser

Ser Thr Pro Gly Gly Ser Trp Arg Ala Arg Ala Leu Phe Pro Ser Ala 50 55 60

Ala Trp His Arg Xaa Ala Ala Trp Asp Ser Pro Trp Thr Gln Thr Gly
65 70 75 80

Asp Phe Ala Arg Gly Ala Met Gly Gly Ala Gly Ala Leu Pro Gly Gly 85 90 95

Cys Val Cys Ile Ser Gly Arg Pro Arg Ala Gln Lys Leu Pro Ala Leu $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$

<210> 377

<211> 44

<212> PRT

<213> Homo sapiens

<400> 377

Met Leu Phe Phe Cys Leu Leu Met Lys Met Leu Gly Pro Ser Arg Leu 1 5 10 15

Pro Phe Leu Ala Leu Thr Leu Cys Arg Phe Ile Leu Tyr Phe Gln Phe 20 25 30

```
Cys Tyr Leu Ile Ser Asp Ser Ser Pro Asp His Ser 35 40
```

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<210> 378
<211> 55
<212> PRT
<213> Homo sapiens
<400> 378
Met Ser His Cys Thr Trp Pro Val Cys Leu Phe Cys Leu ¥1 Pro Pro
Pro Met Gly Asp Leu Lys Glu Val Cys Leu Pro His Arg Cys Pro Gly
                                  25
Arg Thr Ala Cys Cys Ser Tyr Ser Glu Pro His Leu Gln Thr Eu Glu
                              40
Asp Arg Arg Thr Leu Ile Cys
<210> 379
<211> 48
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occuring L-amino acids
<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring \mathtt{Eamino} acids
Met Leu Pro Leu Met Thr Tyr Ile Ile Gln Tyr Ile Tyr Thr Tyr Ile
Xaa Xaa Val Arg Val Leu Ala Ile Leu Phe Leu Arg Arg Val Leu Ser
Gln Thr Leu Leu His Ala Val Tyr Gly Val Ser Cys Val Leu Ile Phe
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40

<210> 380 <211> 51 <212> PRT <213> Homo sapiens

<400> 380

Met Trp Trp Trp Leu Met Leu Ala Thr Thr Ala Leu Lys Pro Ile Ala 1 5 10 15

Thr Ser Ser Cys Thr Glu Ala Leu Pro Gly Leu Trp Arg Asp Arg
20 25 30

His Trp Gly Asp Trp Thr Arg Gly Ser Gly Trp Glu Val Gly Gln Thr 35 40 45

Trp Gln His

<210> 381

<211> 176

<212> PRT

<213> Homo sapiens

<400> 381

Met Ser Arg Gly Asp Asn Cys Thr Asp Leu Leu Ala Leu Gly Ile Pro 1 5 10 15

Ser Ile Thr Gln Ala Trp Gly Leu Trp Val Leu Leu Gly Ala Val Thr 20 25 30

Leu Leu Phe Leu Ile Ser Leu Ala Ala His Leu Ser Gln Trp Thr Arg $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Gly Arg Ser Arg Ser His Pro Gly Gln Gly Arg Ser Gly Glu Ser Val
50 55 60

Glu Glu Val Pro Leu Tyr Gly Asn Leu His Tyr Leu Gln Thr Gly Arg
65 70 75 80

Leu Ser Gln Asp Pro Glu Pro Asp Gln Gln Asp Pro Thr Leu Gly Gly 85 90 95

Pro Ala Arg Ala Ala Glu Glu Val Met Cys Tyr Thr Ser Leu Gln Leu 100 105 110

Arg Pro Pro Gln Gly Arg Ile Pro Gly Pro Gly Thr Pro Val Lys Tyr 115 120 125

Ser Glu Val Val Leu Asp Ser Glu Pro Lys Ser Gln Ala Ser Gly Pro 130 135 140

Glu Pro Glu Leu Tyr Ala Ser Val Cys Ala Gln Thr Arg Arg Ala Arg 145 150 155 160

Ala Ser Phe Pro Asp Gln Ala Tyr Ala Asn Ser Gln Pro Ala Ala Ser 165 170 175

<210> 382

<211> 56

<212> PRT

<213> Homo sapiens

<400> 382

Met Thr Phe Leu Leu Gln Trp Phe Pro Leu Gly Arg Ala Arg Val Val 1 5 10 15

Gly Asp Leu Cys Gly Phe Ser Thr Gln Ile His Pro Gly Val Ser Arg
20 25 30

Ala Gly Met Ala Asp Leu Glu Ser Pro Pro Phe Pro Arg Thr Cys Ser 35 40 45

Val Pro Arg Ala Ala Asn Lys Gly 50 55

<210> 383

<211> 42

<212> PRT

<213> Homo sapiens

<400> 383

Met Gly Ser Trp Phe Tyr Leu Phe Leu Ala Pro Leu Phe Lys Gly Leu 1 5 10 15

Ala Gly Ser Leu Pro Phe Gly Cys Leu Ser Leu Leu Gln Pro Thr Glu 20 25 30

Lys Thr Ala Leu Gln Ser Gly Gly Ser Ser 35 40

<210> 384

<211> 47

<212> PRT

<213> Homo sapiens

<400> 384

Met Gly Val Leu Leu Phe Ser Phe Phe Phe Pro Asn Gly Ser Phe
1 5 10 15

Ser Pro Val Val Leu Pro Ser Tyr Phe Pro Asn Ser Ser Ser Tyr Phe 20 25 30

Val Phe Cys Thr Ser Phe Trp Arg Pro Leu Ser Phe Gln Lys Gly 35 40 45

<210> 385 <211> 80

<212> PRT

<213> Homo sapiens

<400> 385

Met Lys Leu Ser Gly Met Phe Leu Leu Leu Ser Leu Ala Leu Phe Cys 1 5 10 15

Phe Leu Thr Gly Val Phe Ser Gln Gly Gly Gln Val Asp Cys Gly Glu 20 25 30

Phe Gln Asp Thr Lys Val Tyr Cys Thr Arg Glu Ser Asn Pro His Cys 35 40 45

Gly Ser Asp Gly Gln Thr Tyr Gly Asn Lys Cys Ala Phe Cys Lys Ala 50 55 60

Ile Val Lys Ser Gly Gly Lys Ile SerLeu Lys His Pro Gly Lys Cys
65 70 75 80

<210> 386

<211> 692

<212> PRT

<213> Homo sapiens

<400> 386

Met Gly Thr Val Ser Ser Arg Arg Ser Trp Trp Pro Leu Pro Leu Leu 1 5 10 15

Leu Leu Leu Leu Leu Gly Pro Ala Gly Ala Arg Ala Gln Glu 20 25 30

Asp Glu Asp Gly Asp Tyr Glu Glu Leu Val Leu Ala Leu Arg Ser Glu 35 40 45

Glu Asp Gly Leu Ala Glu Ala Pro Glu His Gly Thr Thr Ala Thr Phe 50 60

His Arg Cys Ala Lys Asp Pro Trp Arg Leu Pro Gly Thr Tyr Val Val 65 70 75 80

Val Leu Lys Glu Glu Thr His Leu Ser Gln Ser Glu Arg Thr Ala Arg 85 90 95

Arg Leu Gln Ala Gln Ala Ala Arg Arg Gly Tyr Leu Thr Lys Ile Leu 100 105 110

His Val Phe His Gly Leu Leu Pro Gly Phe Leu Val Lys Met Ser Gly 115 120 125

Asp Leu Leu Glu Leu Ala Leu Lys Leu Pro His Val Asp Tyr Ile Glu 135 Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg 155 Ile Thr Pro Pro Arg Tyr Arg Ala Asp Glu Tyr Gln Pro Pro Asp Gly 165 170 Gly Ser Leu Val Glu Val Tyr Leu Leu Asp Thr Ser Ile Gln Ser Asp 180 185 His Arg Glu Ile Glu Gly Arg Val Met Val Thr Asp Phe Glu Asn Val 200 Pro Glu Glu Asp Gly Thr Arg Phe His Arg Gln Ala Ser Lys Cys Asp Ser His Gly Thr His Leu Ala Gly Val Val Ser Gly Arg Asp Ala Gly Val Ala Lys Gly Ala Ser Met Arg Ser Leu Arg Val Leu Asn Cys Gln Gly Lys Gly Thr Val Ser Gly Thr Leu Ile Gly Leu Glu Phe Ile Arg 265 Lys Ser Gln Leu Val Gln Pro Val Gly Pro Leu Val Val Leu Leu Pro 275 Leu Ala Gly Gly Tyr Ser Arg Val Leu Asn Ala Ala Cys Gln Arg Leu 295 Ala Arg Ala Gly Val Val Leu Val Thr AlaAla Gly Asn Phe Arg Asp 305 310 315 Asp Ala Cys Leu Tyr Ser Pro Ala Ser Ala Pro Glu Val Ile Thr Val 330 Gly Ala Thr Asn Ala Gln Asp Gln ProVal Thr Leu Gly Thr Leu Gly Thr Asn Phe Gly Arg Cys Val Asp Leu Phe Ala Pro Gly Glu Asp Ile 360 Ile Gly Ala Ser Ser Asp Cys Ser Thr Cys Phe ValSer Gln Ser Gly Thr Ser Gln Ala Ala Ala His Val Ala Gly Ile Ala Ala Met Met Leu 395 Ser Ala Glu Pro Glu Leu Thr Leu Ala Glu Leu Arg Gln ArgLeu Ile 405 His Phe Ser Ala Lys Asp Val Ile Asn Glu Ala Trp Phe Pro Glu Asp 420 425

Gln Arg Val Leu Thr Pro Asn Leu Val Ala Ala Leu Pro Pro SerThr 440 His Gly Ala Gly Trp Gln Leu Phe Cys Arg Thr Val Trp Ser Ala His 455 Ser Gly Pro Thr Arg Met Ala Thr Ala Ile Ala Arg Cys Ala Pro Asp 470 Glu Glu Leu Leu Ser Cys Ser Ser Phe Ser Arg Ser Gly Lys Arg Arg Gly Glu Arg Met Glu Ala Gln Gly Gly Lys Leu Val Cys Arg Ala His 505 Asn Ala Phe Gly Gly Glu Gly Val Tyr Ala Ile Ala Arg Cys Cys Leu 520 Leu Pro Gln Ala Asn Cys Ser Val His Thr Ala Pro Pro Ala Glu Ala Ser Met Gly Thr Arg Val His Cys His Gln Gly His Val Leu Thr Gly Cys Ser Ser His Trp Glu Val Glu Asp Leu Gly Thr His Lys Pro Pro Val Leu Arg Pro Arg Gly Gln Pro Asn Gln Cys Val Gly His Arg Glu Ala Ser Ile His Ala Ser Cys Cys His Ala Pro Gly Leu Glu Cys Lys Val Lys Glu His Gly Ile Pro Ala Pro Gln Glu Gln Val Thr Val 615 Ala Cys Glu Glu Gly Trp Thr Leu Thr Gly Cys Ser Ala Leu Pro Gly 635 630 Thr Ser His Val Leu Gly Ala Tyr Ala Val Asp Asn Thr Cys Val Val 645 Arg Ser Arg Asp Val Ser Thr Thr Gly Ser Thr Ser Glu Glu Ala Val Thr Ala Val Ala Ile Cys Cys Arg Ser Arg His Leu Ala Gln Ala Ser 680 Gln Glu Leu Gln

<210> 387 <211> 275

690

<212> PRT

<213> Homo sapiens

<400> 387

Met Gly Asn Phe Arg Gly His Ala Leu Pro Gly Thr Phe Phe Phe Ile 1 5 10 15

Ile Gly Leu Trp Trp Cys Thr Lys Ser Ile Leu Lys Tyr Ile Cys Lys 20 25 30

Lys Gln Lys Arg Thr Cys Tyr Leu Gly Ser Lys Thr Leu Phe Tyr Arg 35 40 45

Leu Glu Ile Leu Glu Gly Ile Thr Ile Val Gly Met Ala Leu Thr Gly 50 55 60

Met Ala Gly Glu Gln Phe Ile Pro Gly Gly Pro His Leu Met Leu Tyr 65 70 75 80

Asp Tyr Lys Gln Gly His Trp Asn Gln Leu Leu Gly Trp His His Phe
85 90 95

Thr Met Tyr Phe Phe Phe Gly Leu Leu Gly Val Ala Ap Ile Leu Cys 100 105 110

Phe Thr Ile Ser Ser Leu Pro Val Ser Leu Thr Lys Leu Met Leu Ser 115 120 125

Asn Ala Leu Phe Val Glu Ala Phe Ile Phe Tyr Asn His Thr His \mathbf{E} y 130 135 140

Arg Glu Met Leu Asp Ile Phe Val His Gln Leu Leu Val Leu Val 145 150 155 160

Phe Leu Thr Gly Leu Val Ala Phe Leu Glu Phe Leu Val Arg Asn Asn 165 170 175

Val Leu Leu Glu Leu Leu Arg Ser Ser Leu Ile Leu Leu Gln Gly Ser 180 185 190

Trp Phe Phe Gln Ile Gly Phe Val Leu Tyr Pro Pro Ser Gly Gly Pro 195 200 205

Ala Trp Asp Leu Met Asp His Glu Asn Ile Leu Phe Leu Thr Ile Cys 210 215 220

Phe Cys Trp His Tyr Ala Val Thr Ile Val Ile Val Gly Met Asn Tyr 225 230 235 240

Ala Phe Ile Thr Trp Leu Val Lys Ser Arg Leu Lys Arg Leu Cys Ser 245 250 255

Ser Glu Val Gly Leu Leu Lys Asn Ala Glu Arg Glu Gln Glu Ser Glu 260 265 270

Glu Glu Met 275 <210> 388

<211> 70

<212> PRT

<213> Homo sapiens

<400> 388

Met Lys Pro Lys His Leu Glu Trp Cys Leu Ala His Ser Trp Cys Val 1 5 10 5

Ile Trp Leu Ser Phe Val Ser Pro Pro Thr Ser His Leu Glu Cys Asp 20 25 30

Gly Phe Pro Gly Ser Leu Leu Pro Pro Cys Glu Glu Gly Arg Cys Phe 35 40 45

Pro Phe Thr Phe His His Asp Cys His Gly Cys Ser Pro Leu Gln 50 55 60

Ser Ser Pro Gly Gln His 65 70

<210> 389

<211> 222

<212> PRT

<213> Homo sapiens

<400> 389

Met Leu Trp Leu Leu Phe Phe Leu Val Thr Ala Ile His Ala Glu Leu 1 5 10 15

Cys Gln Pro Gly Ala Glu Asn Ala Phe Lys Val Arg Leu Ser Ile Arg 20 25 30

Thr Ala Leu Gly Asp Lys Ala Tyr Ala Trp Asp Thr Asn Glu Glu Tyr 35 40 45

Leu Phe Lys Ala Met Val Ala Phe Ser Met Arg Lys Val Pro Asn Arg 50 55 60

Glu Ala Thr Glu Ile Ser His Val Leu Leu Cys AsnVal Thr Gln Arg
65 70 75 80

Val Ser Phe Trp Phe Val Val Thr Asp Pro Ser Lys Asn His Thr Leu 85 90 95

Pro Ala Val Glu Val Gln Ser Ala Ile Arg MetAsn Lys Asn Arg Ile 100 105 110

Asn Asn Ala Phe Phe Leu Asn Asp Gln Thr Leu Glu Phe Leu Lys Ile 115 120 125

Pro Ser Thr Leu Ala Pro Pro Met Asp Pro Ser Val Pro IleTrp Ile 130 135 140 Ile Ile Phe Gly Val Ile Phe Cys Ile Ile Ile Val Ala Ile Ala Leu 145 150 155 160

Leu Ile Leu Ser Gly Ile Trp Gln Arg Arg Arg Lys Asn Lys Glu Pro 165 170 175

Ser Glu Val Asp Asp Ala Glu Asp Lys Cys Glu Asn Met Ile Thr Ile 180 185 190

Glu Asn Gly Ile Pro Ser Asp Pro Leu Asp Met Lys Gly Gly His Ile 195 200 205

Asn Asp Ala Phe Met Thr Glu Asp Glu Arg Leu Thr Pro Leu 210 215 220

<210> 390

<211> 95

<212> PRT

<213> Homo sapiens

<400> 390

Met His Leu Cys Ile Cys Ala Val Trp Val Leu Val Ala Leu Leu Arg 1 5 10 15

Met His Gly Ala Ser Pro Ala Gln Thr Ser Gly Thr Arg Ser Gly Asn
20 25 30

Gly Gly Cys Arg Arg His Gly Ab Gly Gln Gly Arg Gly Ala Ala Thr 35 40 45

Gln Pro Leu Arg Pro Pro Arg Gly Thr Ala Ser Gly Gln Leu Met Ala 50 60

Leu Leu Ser Ala Leu Leu Pro Arg Leu Ser Gly Ser Sæ Thr Pro Met
65 70 75 80

Met Ala His Gly Arg Pro Ala Pro Pro Gln Trp Ser Arg Val Ser 85 90 95

<210> 391

<211> 76

<212> PRT

<213> Homo sapiens

<400> 391

Met Thr Leu Tyr Ser Lys Leu Leu Trp Leu Phe Lys Gly Glu Leu Leu 1 5 15

Phe Pro Leu Val Leu Ala Tyr Val Leu Leu Leu Tyr Ile Val Thr Lys
20 25 30

Phe Asn Tyr Leu Ile Leu Lys Leu Phe Pro Asn Lys Ile Gln Ile Lys

35 40 45

Arg Gly Ser Ile Ala Ser Asn Arg Ser Leu Glu Ser Ser Ala Ser Leu 50 55 60

Pro Ala Arg Lys Glu Glu Lys Leu Leu Lys Lys Phe 65 70 75

<210> 392

<211> 69

<212> PRT

<213> Homo sapiens

<400> 392

Met Leu Leu Ser Lys Glu His Thr Ser Leu Gly Trp Leu Val Ile Phe 1 5 10 15

Leu Thr Leu Ala Ser Gln Leu Ile Ser Tyr Gly Ser Arg Thr Gly Asn 20 25 30

Ser Arg Cys Pro Pro Cys Leu Tyr Arg Thr Leu His Thr Val Ser Thr 35 40 45

Ser His Val Leu Ser Ser Leu Phe Val Ser Thr Phe Ser Gly Asp Glu
50 55 60

Leu Val Trp Thr Thr 65

<210> 393

<211> 113

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 393

Met Arg Pro Leu Leu Gly Gly Tyr Trp Val Leu Cys Leu Ser Val 1 5 10 15

Leu Gly His Ala Ala Leu Tyr His Phe Trp Leu Arg GluGlu Gly Lys
20 25 30

Gly Pro Pro Gln Val Xaa Ser Val Leu Ala Leu Ala Leu Pro Ala Gly 35 40 45

Ser Cys Ala Pro Gly Leu Pro Phe Pro Gly Pro Leu Ile Pro Thr Gln 50 55 60

Leu Leu Phe Ala Leu Glu Trp Gly Thr Pro Thr Pro Leu Arg Asp His

Pro Pro His Ser Met His Ser Ala Pro Gln Asn Pro Pro Val Phe Leu 85 90 95

Gly Thr His Thr Cys Pro Pro Ser Trp Tyr Phe Arg Leu Ile Pro Gln 100 105 110

Ala

<210> 394

<211> 275

<212> PRT

<213> Homo sapiens

<400> 394

Met Thr Ile Thr Ser Phe Tyr Ala Val Cys Phe Tyr Leu Leu Met Leu 1 5 10 15

Val Met Val Glu Gly Phe Gly Gly Lys Glu Ala Val Leu Arg Thr Leu 20 25 30

Arg Asp Thr Pro Met Met Val His Thr Gly Pro Cys Cys Cys Cys 35 40 45

Pro Cys Cys Pro Arg Leu Leu Thr Arg Lys Leu Gln Leu Leu
50 60

Met Leu Gly Pro Phe Gln Tyr Ala Phe Leu Lys Ile Thr Leu Thr Leu 65 70 75 80

Val Gly Leu Phe Leu Ile Pro Asp Gly Ile Tyr Asp Pro Ala Asp Ile 85 90 95

Ser Glu Gly Ser Thr Ala Leu Trp Ile Asn Thr Phe Leu Gly Val Ser 100 105 110

Thr Leu Leu Ala Leu Trp Thr Leu Gly Ile Ile Ser Arg Gln Ala Arg 115 120 125

Leu His Leu Gly Glu Gln Asn Met Gly Ala Lys Phe Ala Leu Phe Gln 130 135 140

Val Leu Ieu Ile Leu Thr Ala Leu Gln Pro Ser Ile Phe Ser Val Leu 145 150 155 160

Ala Asn Gly Gly Gln Ile Ala Cys SerPro Pro Tyr Ser Ser Lys Thr 165 170 175

Arg Ser Gln Val Met Asn Cys His Leu Leu Ile Leu Glu Thr Phe Leu 180 185 190

Met Thr Val Leu Thr Arg Met Tyr Tyr Arg
Arg Lys Asp His Lys Val 195 200 205

Gly Tyr Glu Thr Phe Ser Ser Pro Asp Leu Asp Leu Asn Ser Lys Pro 210 215 220

Lys Val Asp Gly Leu Asp Asn Glu Arg Met Leu Tyr Ser Leu GluTyr 225 230 235 240

Lys Ile Pro Leu Leu Ser Leu Asn Leu Asp Gln Met Gly Ser Ile Pro 245 250 255

Pro Cys Gln His Lys Leu Ala Asp Thr Phe Asp Ser Thr AspGlu Gly 260 265 270

Glu Gln Cys 275

<210> 395

<211> 38

<212> PRT

<213> Homo sapiens

<400> 395

Met Trp Leu Ser Pro Val Pro Gly Val Cys Ala Ala Val Leu Ala Leu 1 5 10 15

Ser Phe Trp Ile Ala Lys Phe Pro Gly Glu Gly Thr Ala Ile Ala Lys 20 25 30

Ala Leu Gly Arg Leu Lys 35

<210> 396

<211> 58

<212> PRT

<213> Homo sapiens

<400> 396

Met Trp Pro Cys Cys Leu Asp Ser Leu Leu Phe Gly Phe Trp Leu Trp 1 5 10 15

Ala Gln Gly Ile Thr Leu Leu Ser Glu Asp Ser Ile Arg Ile Val Cys 20 25 30

Ser Ser Cys Glu Pro Glu Val Leu His Val Pro Thr Pro Val Tyr Arg 35 40 45

Pro Cys Pro Ser His Ser Pro Leu Thr Phe 50 55

<210> 397

<211> 319

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<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (264)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (303)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 397
Met Asn Thr Asp His Leu Arg Leu Thr Val Pp Asn Gly Ile Gly Ala
Leu Lys Leu Arg Glu Met Glu His Tyr Phe Ser Gln Gly Leu Ser Val
Gln Leu Phe Asn Asp Gly Ser Lys Gly Lys Leu An His Leu Cys Gly
Ala Asp Phe Val Lys Ser His Gln Lys Pro Pro Gln Gly Met Glu Ile
Lys Ser Asn Glu Arg Cys Cys Ser Phe Asp Gly Asp Ala Asp Arg Ile
Val Tyr Tyr His Asp Ala Asp Gly His Phe His Leu Ile Asp Gly
Asp Lys Ile Ala Thr Leu Ile Ser Ser Phe Leu Lys Glu Leu Leu Va
                                105
Glu Ile Gly Glu Ser Leu Asn Ile Gly Val Val Gln Thr Ala Tyr Ala
                            120
Asn Gly Ser Ser Thr Arg Tyr Leu Glu Glu Val Met Lys Val Pro Val
    130
                        135
Tyr Cys Thr Lys Thr Gly Val Lys His Leu His His Lys Ala Gln Glu
Phe Asp Ile Gly Val Tyr Phe Glu Ala Asn Gly His Gly Thr Ala Leu
Phe Ser Thr Ala Val Glu Met Lys Ile Lys Gln Ser Ala Glu Gln Leu
                                185
Glu Asp Lys Lys Arg Lys Ala Ala Lys Met Leu Glu Asn Ile Ile Asp
Leu Phe Asn Gln Ala Ala Gly Asp Ala Ile Ser Asp Met Leu Val Ile
```

Glu Ala Ile Leu Ala Leu Lys Gly Leu Thr Val Gln Gln Trp Asp Ala

225	230	25	240

Leu Tyr Thr Asp Leu Pro Asn Arg Gln Leu Lys Val Gln Val Ala Asp 245 250 255

Arg Arg Val Ile Ser Thr Thr Xaa Ala Glu Arg Gln Ala Val Thr Pro 260 265 270

Pro Gly Leu Gln Glu Ala Ile Asn Asp Leu Val Lys Lys Tyr Lys Leu 275 280 285

Ser Arg Ala Phe Val Arg Pro Ser Gly Thr Glu Asp Val Val Xaa Ser 290 295 300

Ile Cys Arg Ser Arg Leu Thr Arg Lys Cys Arg Ser Pro Cys Thr 305 310 315

<210> 398

<211> 278

<212> PRT

<213> Homo sapiens

<400> 398

Met Gln Trp Leu Arg Val Arg Glu Ser Pro Gly Glu Ala Thr Gly His 1 5 10 15

Arg Val Thr Met Gly Thr Ala Ala Leu Gly Pro Val Trp Ala Ala Leu 20 25 30

Leu Leu Phe Leu Leu Met Cys Glu Ile Pro Met Val Glu Leu Thr Phe 35 40 45

Asp Arg Ala Val Ala Ser Asp Cys Gln Arg Cys Cys Asp Ser Glu Asp 50 60

Pro Leu Asp Pro Ala His Val Ser Ser Ala Ser Ser Ser Gly Arg Pro 65 70 75 80

His Ala Leu Pro Glu Ile Arg Pro Tyr Ile Asn Ile Thr Ile Leu Lys 85 90 95

Gly Asp Lys Gly Asp Pro Gly Pro Met Gly Leu Pro Gly Tyr Met Gly
100 105 110

Arg Glu Gly Pro Gln Gly Glu Pro Gly Pro Gln Gly Ser Lys Gly Asp 115 120 125

Lys Gly Glu Met Gly Ser Pro Gly Ala Pro Cys Gln Lys Arg Phe Phe 130 140

Ala Phe Ser Val Gly Arg Lys Thr Ala Leu His Ser Gly Glu Asp Phe 145 150 155 160

Gln Thr Leu Leu Phe Glu Arg Val Phe Val Asn Leu Asp Gly Cys Phe 165 170 175

- Asp Met Ala Thr Gly Gln Phe Ala Ala Pro Leu Arg Gly Ile Tyr Phe 180 185 190
- Phe Ser Leu Asn Val His Ser Trp Asn Tyr Lys Glu Thr Tyr Val His 195 200 205
- Ile Met His Asn Gln Lys Glu Ala Val Ile Leu Tyr Ala Gln Pro Ser
 210 215 220
- Glu Arg Ser Ile Met Gln Ser Gln Ser Val Met Leu Asp Leu Ala Tyr 225 230 235 240
- Gly Asp Arg Val Trp Val Arg Leu Phe Lys Arg Gln Arg Glu Asn Ala 245 250 255
- Ile Tyr Ser Asn Asp Phe Asp Thr Tyr Ile Thr Phe Ser Gly His Leu 260 265 270
- Ile Lys Ala Glu Asp Asp 275
- <210> 399
- <211> 338
- <212> PRT
- <213> Homo sapiens
- <400> 399
- Met Arg Lys Pro Ala Ala Gly Phe Leu Pro Ser Leu Leu Lys Val Leu 1 5 10 15
- Leu Leu Pro Leu Ala Pro Ala Ala Gln Asp Ser Thr Gln Ala Ser 20 25 30
- Thr Pro Gly Ser Pro Leu Ser Pro Thr Glu Tyr Glu Arg Phe Phe Ala 35 40 45
- Leu Leu Thr Pro Thr Trp Lys Ala Glu ThrThr Cys Arg Leu Arg Ala 50 55 60
- Thr His Gly Cys Arg Asn Pro Thr Leu Val Gln Leu Asp Gln Tyr Glu 65 70 75 80
- Asn His Gly Leu Val Pro Asp Gly Ala Val Cys SerAsn Leu Pro Tyr 85 90 95
- Ala Ser Trp Phe Glu Ser Phe Cys Gln Phe Thr His Tyr Arg Cys Ser 100 105 110
- Asn His Val Tyr Tyr Ala Lys Arg Val Leu Cys Ser GlnPro Val Ser 115 120 125
- Ile Leu Ser Pro Asn Thr Leu Lys Glu Ile Glu Ala Ser Ala Glu Val 130 135 140

Ser Pro Thr Thr Met Thr Ser Pro Ile Ser Pro His Phe Thr Val Thr Glu Arg Gln Thr Phe Gln Pro Trp Pro Glu Arg Leu Ser Asn Asn Val 165 170 Glu Glu Leu Leu Gln Ser Ser Leu Ser Leu Gly Ser Gln Glu Gln Ala 185 Pro Glu His Lys Gln Glu Gln Gly Val Glu His Arg Gln Glu Pro Thr 195 Gln Glu His Lys Gln Glu Glu Gly Gln Lys Gln Glu Glu Gln Glu Glu 215 Glu Gln Glu Glu Gly Lys Gln Glu Gly Gln Gly Thr Lys Glu 230 235 Gly Arg Glu Ala Val Ser Gln Leu Gln Thr Asp Ser Glu Pro Lys Phe 245 250 His Ser Glu Ser Leu Ser Ser Asn Pro Ser Ser Phe Ala Pro Arg Val Arg Glu Val Glu Ser Thr Pro Met Ile Met Glu Asn Ile Gln Glu Leu Ile Arg Ser Ala Gln Glu Ile Asp Glu Met Asn Glu Ile Tyr Asp Glu 295 Asn Ser Tyr Trp Arg Asn Gln Asn Pro Gly Ser Leu Leu Gln Leu Pro 315 His Thr Glu Pro Cys Trp Cys Cys Ala Ile Arg Ser Trp Arg Ile Pro 330

<210> 400

Ala Ser

<211> 58

<212> PRT

<213> Homo sapiens

<400> 400

Met Glu Pro Trp Ser Trp Phe Phe Phe Phe Phe Phe Phe Pro Gln
1 5 10 15

Arg Thr Cys Gly Cys Ala Leu Cys Val Leu Phe Leu Phe Ser Ile Trp 20 25 30

Gly Pro His Gly Lys Glu Leu \mathbb{R} u Asn Ser Phe Leu Tyr Glu Leu Pro 35 40 45

Leu Cys Ser Tyr Lys Gly Pro Phe Leu Ser

50 55

<210> 401

<211> 47

<212> PRT

<213> Homo sapiens

<400> 401

Met Gln Ser Gly Arg Ser Trp Ala Leu Lys Met Val Leu Leu Cys Asn 1 5 10 15

Ser Cys Leu Gly Leu Gly Val Gly Ser Val Gly Pro Ser Met Ser Ser 20 25 30

Leu Phe Gly Ala Val Leu Ser Glu Thr Pro Gly Ser Ser Val Tyr 35 40 45

<210> 402

<211> 222

<212> PRT

<213> Homo sapiens

<400> 402

Met Tyr Leu Ser Ile Ile Phe Leu Ala Phe Val Ser Ile Asp Arg Cys 1 10 15

Leu Gln Leu Thr His Ser Cys Lys Ile Tyr Arg Ile Gln Glu Pro Gly $20 \\ 25 \\ 30$

Phe Ala Lys Met Ile Ser Thr Val Val Trp Leu Met Val Leu Leu Ile 35 40 45

Met Val Pro Asn Met Met Ile Pro Ile Lys Asp Ile Lys Glu Lys Ser 50 55 60

Asn Val Gly Cys Met Glu Phe Lys Lys Glu Phe Gly Arg Asn Trp His 65 70 75 80

Leu Leu Thr Asn Phe Ile Cys Val Ala Ile Phe Leu Asn Phe Ser Ala 85 90 95

Ile Ile Leu Ile Ser Asn Cys Leu Val Ile Arg Gln Leu Tyr Arg Asn 100 105 110

Lys Asp Asn Glu Asn Tyr Pro Asn Val Lys Lys Ala Leu Ile Asn Ile 115 120 125

Leu Leu Val Thr Thr Gly Tyr Ile Ile Cys Phe Val Pro Tyr His Ile 130 135 140

Val Arg Ile Pro Tyr Thr Leu Ser Gln Thr Glu Val Ile Thr Asp Cys 145 150 155 160 Ser Thr Arg Ile Ser Leu Phe Lys Ala Lys Glu Ala Thr Leu Leu Leu 165 170 175

Ala Val Ser Asn Leu Cys Phe Asp Pro Ile Leu Tyr Tyr His Leu Ser 180 185 190

Lys Ala Phe Arg Ser Lys Val Thr Glu Thr Phe Ala Ser Pro Lys Glu 195 200 205

Thr Lys Ala Gln Lys Glu Lys Leu Arg Cys Glu Asn Asn Ala 210 215 220

<210> 403

<211> 88

<212> PRT

<213> Homo sapiens

<400> 403

Met Val Ala Gly Phe Val Phe Tyr Leu Gly Val Phe Val Val Cys His $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Gln Leu Ser Ser Ser Leu Asn Ala Thr Tyr Arg Ser Leu Val Ala Arg 20 25 30

Glu Lys Val Phe Trp Asp Leu Ala Ala Thr Arg Ala Val Phe Gly Val
35 40 45

Gln Ser Thr Ala Ala Ala Val Gly Ser Ala Gly Gly Pro Cys Ala Ala 50 55 60

Cys Arg Gln Gly Ala Trp Pro Ala Glu Leu Val Leu Val Ser His His 65 70 75 80

Asp Ser Asn Gly Ile Leu Leu Leu 85

<210> 404

<211> 713

<212> PRT

<213> Homo sapiens

<400> 404

Met Leu Leu Ala Thr Leu Leu Leu Leu Leu Gly Gly Ala Leu Ala 1 5 10 15

His Pro Asp Arg Ile Ile Phe Pro Asn His Ala Cys.Glu Asp Pro Pro 20 25 30

Ala Val Leu Leu Glu Val Gln Gly Thr Leu Gln Arg Pro Leu Val Arg 35 40 45

Asp Ser Arg Thr Ser Pro Ala Asn Cys Thr Trp Leu Ile Leu Gly Ser 50 55 60

Lys Glu Gln Thr Val Thr Ile Arg Phe Gln Lys Leu His Leu Ala Cys Gly Ser Glu Arg Leu Thr Leu Arg Ser Pro Leu Gln Pro Leu Ile Ser Leu Cys Glu Ala Pro Pro Ser Pro Leu Gln Leu Pro Gly Gly Asn Val Thr Ile Thr Tyr Ser Tyr Ala Gly Ala Arg Ala Pro Met Gly Gln Gly 120 Phe Leu Leu Ser Tyr Ser Gln Asp Trp Leu Met Cys Leu Gln Glu Glu 135 Phe Gln Cys Leu Asn His Arg Cys ValSer Ala Val Gln Arg Cys Asp 150 155 Gly Val Asp Ala Cys Gly Asp Gly Ser Asp Glu Ala Gly Cys Ser Ser Asp Pro Phe Pro Gly Leu Thr Pro Arg Pro Val Pro Ser Leu Pro Cys Asn Val Thr Leu Glu Asp Phe Tyr Gly Val Phe Ser Ser Pro Gly Tyr Thr His Leu Ala Ser Val Ser His Pro Gln SerCys His Trp Leu Leu 215 Asp Pro His Asp Gly Arg Arg Leu Ala Val Arg Phe Thr Ala Leu Asp Leu Gly Phe Gly Asp Ala Val His Val Tyr Asp Gly ProGly Pro Pro 245 250 Glu Ser Ser Arg Leu Leu Arg Ser Leu Thr His Phe Ser Asn Gly Lys 265 Ala Val Thr Val Glu Thr Leu Ser Gly Gln Ala Val Val SerTyr His Thr Val Ala Trp Ser Asn Gly Arg Gly Phe Asn Ala Thr Tyr His Val Arg Gly Tyr Cys Leu Pro Trp Asp Arg Pro Cys Gly Leu Gly Ser Gly Leu Gly Ala Gly Glu Gly Leu Gly Glu Arg Cys Tyr Ser Glu Ala Gln 330 Arg Cys Asp Gly Ser Trp Asp Cys Ala Asp Gly Thr Asp Glu Glu Asp Cys Pro Gly Cys Pro Pro Gly His Phe Pro Cys Gly Ala Ala Gly Thr 360 365

Ser Gly Ala Thr Ala Cys Tyr Leu Pro Ala Asp Arg Cys Asn Tyr Gln 375 Thr Phe Cys Ala Asp Gly Ala Asp Glu Arg Arg Cys Arg His Cys Gln 395 Pro Gly Asn Phe Arg Cys Arg Asp Glu Lys Cys Val Tyr Glu Thr Trp Val Cys Asp Gly Gln Pro Asp Cys Ala Asp Gly Ser Asp Glu Trp Asp 425 Cys Ser Tyr Val Leu Pro Arg Lys Val Ile Thr Ala Ala Val Ile Gly Ser Leu Val Cys Gly Leu Leu Val Ile Ala Leu Gly Cys Thr Cys Lys Leu Tyr Ala Ile Arg Thr Gln Glu Tyr Ser Ile Phe Ala Pro Leu 475 Ser Arg Met Glu Ala Glu Ile Val Gln Gln Ala Pro Pro Ser Tyr 485 490 Gly Gln Leu Ile Ala Gln Gly Ala Ile Pro Pro Val Glu Asp Phe Pro Thr Glu Asn Pro Asn Asp Asn Ser Val Leu Gly Asn Leu Arg Ser Leu Leu Gln Ile Leu Arg Gln Asp Met Thr Pro Gly Gly Gly Pro Gly Ala 535 Arg Arg Gln Arg Gly Arg Leu Met Arg Arg Leu Val Arg Arg Leu Arg Arg Trp Gly Leu Leu Pro Arg Thr Asn Thr Pro Ala Arg Ala Ser Glu Ala Arg Ser Gln Val Thr Pro Ser Ala Ala Pro Leu Glu Ala Leu 580 Asp Gly Gly Thr Gly Pro Ala Arg Glu Gly Gly Ala Val Gly Gln Gln 600 Asp Gly Glu Gln Ala Pro Pro Leu Pro Ile Lys Ala Pro Leu Pro Ser 615 Ala Ser Thr Ser Pro Ala Pro Thr Thr Val Pro Glu Ala Pro Gly Pro Leu Pro Ser Leu Pro Leu Glu Pro Ser Leu Leu Ser Gly Val Val Gln Ala Leu Arg Gly Arg Leu Leu Pro Ser Leu Gly Pro Pro Gly Pro Thr 660 665

Arg Ser Pro Pro Gly Pro His Thr Ala Val Leu Ala Leu Glu Asp Glu 675 680 685

Asp Asp Val Leu Leu Val Pro Leu Ala Glu Pro Gly Val Trp Val Ala 690 695 700

Glu Ala Glu Asp Glu Pro Leu Leu Thr 705 710

<210> 405

<211> 97

<212> PRT

<213> Homo sapiens

<400> 405

Met Ile Leu Leu Ser Leu Phe Gln Gly Val Arg Gly Ser Leu Gly 1 5 10 15

Ser Pro Gly Asn Arg Glu Asn Lys Glu Lys Lys Val Phe Ile Ser Leu 20 25 30

Val Gly Ser Arg Gly Leu Gly Cys Ser Ile Ser Ser Gly Pro Ile Gln
35 40 45

Lys Pro Gly Ile Phe Ile Ser His Val Lys Pro Gly Ser &u Ser Ala 50 55 60

Glu Val Gly Leu Glu Ile Gly Asp Gln Ile Val Glu Val Asn Gly Val 65 70 75 80

Asp Phe Ser Asn Leu Asp His Lys Glu Leu Gln Leu Ala Gly Ser 🛠 85 90 95

Ser

<210> 406

<211> 49

<212> PRT

<213> Homo sapiens

<400> 406

Met Asn Val Phe Val Gly Pro Leu Ser Val Ala Ile Val Ile Phe Cys 1 10 15

Trp Ile Thr Met Tyr Trp Val Ser Ile Val Met Gly Gln Gly Arg Gly 20 25 30

Gln Tyr Thr Trp Arg Thr Ile Leu Ser Thr Ser Thr Pro Ser Val Cys 35 40 45

Ser

<210> 407 <211> 50 <212> PRT <213> Homo sapiens

<400> 407

Met Val Cys Cys Gly Phe Phe Leu Leu Trp Ser Arg Val Arg Ser Tyr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Met Lys Leu Ser Gly His Arg Trp Ser Ser SerCys Pro His His Cys 20 25 30

Tyr Ser Lys Cys Gly Leu His Thr Ser Asn Gly Lys Ser Ser Val His 35 40 45

Thr Val

<210> 408 <211> 406 <212> PRT <213> Homo sapiens

Leu Leu Val Thr Trp Val Phe Thr Pro Val Thr Thr Glu Ile Thr 20 25 30

Ser Leu Asp Thr Glu Asn Ile Asp Glu Ile Leu Asn Asn Ala Asp Val 35 40 45

Ala Leu Val Asn Phe Tyr Ala Asp Trp Cys Arg Phe Ser Gln Met Leu 50 60

His Pro Ile Phe Glu Glu Ala Ser Asp Val Ile Lys Glu Glu Phe Pro 65 70 75 80

Asn Glu Asn Gln Val Val Phe Ala Arg Val Asp Cys Asp Gln His Ser 85 90 95

Asp Ile Ala Gln Arg Tyr Arg Ile Ser Lys Tyr Pro Thr Leu Lys Leu 100 105 110

Phe Arg Asn Gly Met Met Lys Arg Glu Tyr Arg Gly Gln Arg Ser 115 120 125

Val Lys Ala Leu Ala Asp Tyr Ile Arg Gln Gln Lys Ser Asp Pro Ile 130 135 140 Gln Glu Ile Arg Asp Leu Ala Glu Ile Thr Thr Leu Asp Arg Ser Lys Arg Asn Ile Ile Gly Tyr Phe Glu Gln Lys Asp Ser Asp Asn Tyr Arg Val Phe Glu Arg Val Ala Asn Ile Leu His Asp Asp Cys Ala Phe Leu 185 Ser Ala Phe Gly Asp Val Ser Lys Pro Glu Arg Tyr Ser Gly Asp Asn Ile Ile Tyr Lys Pro Pro Gly His Ser Ala Pro Asp Met Val Tyr Leu Gly Ala Met Thr Asn Phe Asp Val Thr Tyr Asn Trp Ile Gln Asp Lys Cys Val Pro Leu Val Arg Glu Ile Thr Phe Glu Asn Gly Glu Glu Leu Thr Glu Glu Gly Leu Pro Phe Leu Ile Leu Phe His Met Lys Glu Asp 265 Thr Glu Ser Leu Glu Ile Phe Gln Asn Glu Val Ala Arg Gln Leu Ile 280 275 Ser Glu Lys Gly Thr Ile Asn Phe LeuHis Ala Asp Cys Asp Lys Phe Arg His Pro Leu Leu His Ile Gln Lys Thr Pro Ala Asp Cys Pro Val 315 Ile Ala Ile Asp Ser Phe Arg His Met Tyr ValPhe Gly Asp Phe Lys 330 Asp Val Leu Ile Pro Gly Lys Leu Lys Gln Phe Val Phe Asp Leu His 345 Ser Gly Lys Leu His Arg Glu Phe His His Gly ProAsp Pro Thr Asp

Thr Ala Pro Gly Glu Gln Ala Gln Asp Val Ala Ser Ser Pro Pro Glu 370 375 380

360

Ser Ser Phe Gln Lys Leu Ala Pro Ser Glu Tyr Arg Tyr Thr Leu Leu 385 390 395 400

Arg Asp Arg Asp Glu Leu 405

<210> 409

<211> 103

<212> PRT

<213> Homo sapiens

<400> 409

Trp Trp His His Gly Tyr Ser Asn Ile Thr Gly Thr Glu Gly Glu Arg
20 25 30

Arg Asn Leu Lys Arg Asn Lys Thr Asn Phe Arg Arg Phe Gln Asp Gly 35 40 45

Arg Ile Gly Thr Ala Pro Val Tyr Ser Ser Gln Cys Glu Arg Cys Arg
50 55 60

Arg Trp Val Ile Ser Ala Phe Pro Thr Glu Gln Thr Ala His Gln Lys
65 70 75 80

Ile Ile Ser His Ala Trp Leu Gly Gly Ser His Ala His Gly Ala Ser 85 90 95

Leu Ile Ala Ser Thr Ala Val 100

<210> 410

<211> 49

<212> PRT

<213> Homo sapiens

<400> 410

Met Ala Pro Arg Asn Gln Gly Ser Phe Ser Phe Gly Asn Phe Met Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Phe Leu Val Leu Ile Glu Arg Arg Tyr Leu Pro Phe Leu Ser Pro Ile 20 25 30

Leu Phe Cys Cys Ser Thr His Asn Arg Ser Ala Val Thr Ala Thr Asn 35 40 45

Leu

<210> 411

<211> 73

<212> PRT

<213> Homo sapiens

<400> 411

Met His Ala Tyr Ala Cys Val Cys AlaCys Met Leu Val Cys Val Cys 1 5 10 15

Val Cys Val Cys Arg Ala Leu Val Ile Pro Thr Glu Gln Arg His Arg 20 25 30

Arg Val Ala His Gly Arg Thr Ser Asp Ser Thr Leu Pro Cys Thr Val 35 40 45

Lys Ile Trp Pro Ser Glu Arg Gly Asp Gly Arg Gly Glu Arg Gly Glu 50 60

Arg Arg Gly Thr Asp Trp Arg Gly
65 70

<210> 412

<211> 84

<212> PRT

<213> Homo sapiens

<400> 412

Met Val Trp Cys Gln Cys Leu Cys Pro Leu Cys Ala Cys Trp Glu Glu 1 5 10 15

Ala Gl
n Ala Leu Trp Trp Pro Pro Leu Cys Thr Trp Pro G
y Glu Ala 20 25 30

Arg Gly Ser Gly Ala Ser Leu Arg Leu Arg Pro Pro Leu Gln Asn Lys 35 40 45

Leu Ser Pro Gly Val Cys Leu Ser Leu Phe Leu Ser Pro Glu Arg Asn 50 55 60

Ala Gly Val Pro Glu Ala Ser Leu Gln Thr Lys His Pro Cys Thr Ser 65 70 75 80

Tyr Gly Ser Gly

<210> 413

<211> 68

<212> PRT

<213> Homo sapiens

<400> 413

Met Arg Lys Val Thr Ile Ser Lys Lys His Ala Leu Leu Cys Phe 1 5 10 15

Gln Leu Phe Arg Cys Leu Leu Ser Met Tyr Ile Trp Ile Thr Phe Val $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Leu Asp Gly Ser Cys Glu Ser Thr Val Leu Ser Asn Arg Ser Leu Ser 35 40 45

Leu Val Pro Ile Ile Val Tyr Ile Ala Gln Leu Pro Glu Phe Asp Ser 50 60

Ser Val Gln Arg 65 <210> 414

<211> 30

<212> PRT

<213> Homo sapiens

<400> 414

Met Phe Ala Phe Val Ile Leu Val Phe Ile Thr Ser Met Trp Ala Gln 1 5 10 15

Thr Ile Ser Leu His Val Ser Ser Ser Glu Gu Val Ser Cys
20 25 30

<210> 415

<211> 104

<212> PRT

<213> Homo sapiens

<400> 415

Met Pro Leu Gln Leu Ser Gly Gln Tyr Trp Ile Ser Leu Leu Val Phe 1 5 10 15

Leu Ser Leu Gln Pro Phe Pro Gln Ala Ala Ile Pro Cys Ala Leu Thr 20 25 30

Asp Val Gly Gly Ser Cys Val Ile Cys His Ile Leu Leu Asn Cys Leu 35 40 45

Cys Ile Leu Phe Thr Leu Thr Ala Pro Ser Leu Ser His Val Leu Leu 50 55 60

Ile Lys Met Ser Leu Ser Val Cys Tyr Glu Pro Gly Ala Asp Leu Ser 65 70 75 80

Asp Arg Ala Ala Thr Gly Asn Lys Leu Thr Arg Ser Thr Cys Leu 85 90 95

Leu Met His Ser Asn Lys Leu Cys 100

<210> 416

<211> 44

<212> PRT

<213> Homo sapiens

<400> 416

Ala Leu Arg Leu Val Phe Leu Phe Arg Ala Val Thr Asn Thr Asp Ala 20 25 30

Ser Arg Leu Arg Ala Lys Arg Gly Glu Cys Pro Tyr 35 40

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<210> 417
<211> 70
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 417
Met Val Ser Phe Val Gly Ile Cys Leu Leu Leu Gly Ser Phe Phe Ser
Pro Ser Leu Gln Gly Thr Ile Trp His His Pro Ala Lys Pro Asp Gly
Ser Gly His Gly Leu Pro Ser Phe Ala Val Ile Met Gly Lys Gln Val
Val Pro Thr Val Tyr Trp Arg Met Pro Tyr Pro Arg Arg Gly Gly Pro
                         55
Gly Thr Xaa Phe Ala Leu
 65
<210> 418
<211> 74
<212> PRT
<213> Homo sapiens
<400> 418
Met Thr Leu Leu Phe Ile Phe Phe Val Asp Cys Phe Ser Thr Pro
                                     10
Gly Ser Ser Val Phe Asp Thr Gln Glu Val Trp ValVal Val Tyr Ser
Val Asn Lys Leu Leu Ala Val Gln His Cys Gln Gly Ile Ala Pro Asn
Val Tyr Ala Leu Ala Val Lys Lys Ser Val Cys Asn Val Ser GluTrp
```

Ser Leu Val Ile Cys His Pro Met Pro Ile

<210> 419

<211> 57

<212> PRT

<213> Homo sapiens

<400> 419

Met Pro Pro His Arg Gln Thr Asp Gly Gln Met Gly Leu Pro Ala Por 1 5 10 15

Ala Leu Trp Val Trp Gly Leu Leu Leu Ser Ser Ser Phe Gln Thr Leu 20 25 30

Leu Pro Ala Phe Pro Lys Pro Pro Ala Leu Asn Leu Gly Cys Ser Thr 35 40 45

Arg Pro Ile Pro Ser Phe Leu Lys Ile 50 55

<210> 420

<211> 80

<212> PRT

<213> Homo sapiens

<400> 420

Met Ala Leu Trp Val Thr Cys Ile Leu Ser Leu Cys Thr Trp Phe Ser 1 5 10 15

Cys Leu Tyr Gly Ala Asp Ser Leu Ala Asn Lys Cys Leu Ser Ala Gly
20 25 30

Ala Thr Arg Lys Ala Phe Pro Phe Cys Val Leu Phe Arg Asp Leu Glu 35 40 45

Val Gly Leu Gly Phe Glu Gly Phe Val Thr His Leu Ala Cys Lys Leu 50 60

Phe Cys Tyr Cys Glu Leu Ser Asp Ser Ala Leu Ser Leu Gly His Glu 65 70 75 80

<210> 421

<211> 115

<212> PRT

<213> Homo sapiens

<400> 421

Met Leu Ala Leu Ser Ser Ser Phe Leu Val Leu Ser Tyr Leu Leu Thr 1 10 15

Arg Trp Cys Gly Ser Val Gly Phe Ile Leu Ala Asn Cys Phe Asn Met 20 25 30

Gly Ile Arg Ile Thr Gln Ser Leu Cys Phe Ile His Arg Tyr Tyr Arg 35 40 45

Arg Ala Pro Thr Gly Pro Trp Leu Ala Cys Thr Tyr Arg Gln Ser Cys
50 55 60

Ser Gly His Leu Pro Ser Val Val Gly Leu Leu Phe Arg Arg Tyr
65 70 75 80

Ser Ser Ala Val Ser Arg AlaGly Gln Pro Asp Trp His Thr Leu Leu
85 90 95

Trp Gly Pro Ser Val Trp Glu Gln Leu Ser Gly Gln His Ser Ser Gln 100 105 110

Arg Pro Ser 115

<210> 422

<211> 76

<212> PRT

<213> Homo sapiens

<400> 422

Met Gly Ala His Ser Phe Gly Phe Gln Leu Phe Met Ser Val Ser Val 1 5 10 15

Leu Trp Gly Arg Leu Cys Leu Tyr Gly Arg Phe Ser Val Ile Thr Pte 20 25 30

Ala Ser Pro Pro Thr Thr Phe Met Asp Ile Gln Cys Cys Phe Ala Leu 35 40 45

Gln Leu Glu Arg Arg Asp Gly Gln Leu Val Thr Leu Ser His Ile Ala 50 60

Thr Phe Ile Cys Ser Gly Lys Lys Leu Asp Arg Trp 65 70 75

<210> 423

<211> 104

<212> PRT

<213> Homo sapiens

<400> 423

Met Leu Phe Cys Ile Leu Leu Tyr Thr Leu Gly SerAla Arg Cys His 1 5 10 15

His Leu Ser Phe Phe Leu Trp Gly Trp Ser Asn Pro Pro Glu Lys Thr 20 25 30

Pro Leu Ala Ser Trp Arg Gly Val Lys Ala Arg Leu ProGly Pro Gly

35 40 45

Cys Gln Leu Leu Gly Ala Ala Gly Ala Glu Ala Gly Ser Cys Gln Ala 50 55 60

Phe Ser Gln Gln Asp Ala Leu Ser Thr His Leu Gly Phe Arg Ile Pro 65 70 75 80

Leu Pro His Leu Gln Met Gly Gln Met Ser Pro Lys Pro Ala Ala Pro 85 90 95

Phe Cys Phe Thr Leu Ser Thr Glu 100

<210> 424

<211> 87

<212> PRT

<213> Homo sapiens

<400> 424

Met Met Thr Phe Phe Gly Ser His Ile Leu Leu Phe Leu Phe Cys Pro 1 5 10

Leu Lys Ala Gly His Arg His Leu Val Ser Ser Phe Leu Thr Val $20 \ 25 \ 30$.

Ala Val Ser Ile Ser Lys Gly Pro Phe Phe His Ser Thr Ala Gln Lys 35 40 45

Arg Lys Ser Arg Lys Gln Leu Pro Arg Pro Ala Phe Leu Val Pro Leu 50 60

Ser Ser Gln Asn Thr Gln Thr Arg Thr Lys His His Phe Ser Phe Leu 65 70 75 80

His Leu Ile Val Leu Gln Pro 85

<210> 425

<211> 40

<212> PRT

<213> Homo sapiens

<400> 425

Met Val Cys Phe Tyr Ala Leu Leu Cys Phe Leu Ser Ser Val Glu
1 5 10 15

Ile Gly Pro Leu Ser Trp Leu Leu Cys Leu Ser His Ile Lys Cys His 20 25 30

Phe Thr Ala Leu Pro Phe Glu Ala 35 40

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<210> 426
<211> 159
<212> PRT
<213> Homo sapiens
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<400> 426

Gly Thr Arg Leu Pro Thr Asn Val Arg Gly Ile Met Val Trp Phe Ser 1 5 10 15

Cys Trp Leu Leu Thr Gln Ser Ile Thr Val Ile Leu Gly Ala Arg Gly
20 25 30

Arg Tyr Gly Arg Leu Cys Val Leu Gln Gly Arg His Cys Gly Leu Val 35 40 45

Asp Lys Ser Gly Ser Pro Asn Pro Phe Ser Ala Asp Val Leu Ala Val 50 55 60

His Ser Gly Gln Val Ser His Ser Pro Glu Pro Gln Arg Leu Tyr Gln 65 70 75 80

Tyr Asp Glu Asn Lys Tyr Ser Thr Cys Leu Pro His Gly Val Val Ser 85 90 95

Ala Val Asn Glu Ile Met Tyr Met Lys His Leu Val Tyr Leu Ala Pro $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$

Asn Lys Ser Ser Thr Thr Ser Ser Leu Ile Thr Asn Lys Met Glu Leu 115 120 125

Glu Gly Cys Ile Ser Leu Asn Lys Ile Leu Arg Gln Ile Leu Gly Val 130 135 140

Pro Val Phe Ile Leu Gln Leu Glu Ser Pro Pro Ser Leu Phe Gly 145 150 155

<210> 427

<211> 333

<212> PRT

<213> Homo sapiens

<400> 427

Met Ser Pro Trp Ser Trp Phe Leu Leu Gln Thr Leu Cys Leu Leu Pro 1 5 10 15

Thr Gly Ala Ala Ser Arg Arg Gly Ala Pro Gly Thr Ala Asn Cys Glu 20 25 30

Leu Lys Pro Gln Gln Ser Glu Leu Asn Ser Phe Leu Trp Thr Ile Lys
35 40 45

Arg Asp Pro Pro Ser Tyr Phe Phe Gly Thr Ile His Val Pro Tyr Thr 50 60

Arg Val Trp Asp Phe Ile Pro Asp Asn Ser Lys Glu Ala Phe Leu Gln 65 Ser Ser Ile Val Tyr Phe Glu Leu Asp Leu Thr Asp Pro Tyr Thr Ile 90 Ser Ala Leu Thr Ser Cys Gln Met Leu Pro Gln Gly Glu Asn Leu Gln Asp Val Leu Pro Arg Asp Ile Tyr Cys Arg Leu Lys Arg His Leu Glu Tyr Val Lys Leu Met Met Pro Leu Trp Met Thr Pro Asp Gln Arg Gly 135 Lys Gly Leu Tyr Ala Asp Tyr Leu Phe Asn Ala Ile Ala Gly Asn Trp 155 150 Glu Arg Lys Arg Pro Val Trp Val Met Leu Met Val Asn Ser Leu Thr Glu Val Asp Ile Lys Ser Arg Gly Val Pro Val Leu Asp Leu Phe Leu 185 Ala Gln Glu Ala Glu Arg Leu Arg Lys Gln Thr Gly Ala Val Glu Lys Val Glu Glu Gln Cys His Pro Leu Asn Gly Leu Asn Phe Ser Gln Val 215 Ile Phe Ala Leu Asn Gln Thr Leu Leu Gln Glu Ser Leu Arg Ala 235 230 Gly Ser Leu Gln Ile Pro Tyr Thr Thr Glu Asp Leu Ile Lys His Tyr Asn Cys Gly Asp Leu Ser Ser Val Ile Leu Ser His Asp Ser Ser Gln 265 Val Pro Asn Phe Ile Asn Ala Thr Leu Pro Pro Gln Glu Arg Ile Thr Ala Gln Glu Ile Asp Ser Tyr Leu Arg Arg Glu Leu Ile Tyr Lys Arg 295 Asn Glu Arg Ile Gly Lys Arg Val Lys Ala Bu Leu Glu Glu Phe Pro 305 Asp Lys Gly Phe Phe Phe Ala Phe Gly Ala Ala Ser Gln 325

<210> 428

<211> 226

<212> PRT

<213> Homo sapiens

<400> 428

Met Glu Thr Val Val Ile Val Ala Ile Gly Val Leu Ala Thr Ile Phe 1 5 10 15

Leu Ala Ser Phe Ala Ala Leu Val Leu Val Cys Arg Gln Arg Tyr Cys
20 25 30.

Arg Pro Arg Asp Leu Leu Gln Arg Tyr Asp Ser Lys Pro Ile Val Asp $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Ile Gly Ala Met Glu Thr Gln Ser Glu Pro Ser Glu Leu Glu Leu 50 55 60

Asp Asp Val Val Ile Thr Asn Pro His Ile Glu Ala Ile Leu Glu Asn 65 70 75 80

Glu Asp Trp Ile Glu Asp Ala Ser Gly Leu Met Ser His Cys Ile Ala 85 90 95

Ile Leu Lys Ile Cys His Thr Leu Thr Glu Lys Leu Val Ala Met Thr 100 105 110

Met Gly Ser Gly Ala Lys Met Lys Thr Ser Ala Ser Val Ser Asp Ile 115 . 120 125

Ile Val Val Ala Lys Arg Ile Ser Pro Arg Val Asp Asp Val Val Lys 130 135 140

Ser Met Tyr Pro Pro Leu Asp Pro Lys Leu Leu Asp Ala Arg Thr Thr 145 150 155 160

Ala Leu Leu Ser Val Ser His Leu Val Leu Val Thr Arg Asn Ala 165 170 175

Cys His Leu Thr Gly Gly Leu Asp Trp Ile Asp Gln Ser Leu Ser Ala 180 185 190

Ala Glu Glu His Leu Glu Val Leu Arg Glu Ah Ala Leu Ala Ser Glu
195 200 205

Pro Asp Lys Gly Leu Pro Gly Pro Glu Gly Phe Leu Gln Glu Gln Ser 210 215 220

Ala Ile 225

<210> 429

<211> 404

<212> PRT

<213> Homo sapiens

<400> 429

Met Arg Leu Gln Asp Val Tyr Met Leu Asn Val Lys Gly Leu Ala Arg

1	5	10	15

- Gly Val Phe Gln Arg Val Thr Gly Ser Ala Ile Thr Asp Leu Tyr Ser 20 25 30
- Pro Lys Arg Leu Phe Ser Leu Thr Gly Asp Asp Cys Phe Gln Val Gly 35 40 45
- Lys Val Ala Tyr Asp Met Gly Asp Tyr Tyr His Ala Ile Pro Trp Leu 50 55 60
- Glu Glu Ala Val Ser Leu Phe Arg Gly Ser Tyr Gly Glu Trp Lys Thr 65 70 75 80
- Glu Asp Glu Ala Ser Leu Glu Asp Ala Leu Asp His Leu Ala Phe Ala 85 90 9
- Tyr Phe Arg Ala Gly Asn Val Ser Cys Ala Leu Ser Leu Ser Arg Glu 100 105 110
- Phe Leu Leu Tyr Ser Pro Asp Asn Lys Arg Met Ala Arg Asn Val Leu 115 120 125
- Lys Tyr Glu Arg Leu Leu Ala Glu Ser Pro Asn His Val Val Ala Glu 130 135 140
- Ala Val Ile Gln Arg Pro Asn Ile Pro His Leu Gln Thr Arg Asp Thr 145 150 155 160
- Tyr Glu Gly Leu Cys Gln Thr Leu Gly Ser Gln Pro Thr Leu Tyr Gln
 165 170 175
- Ile Pro Ser Leu Tyr Cys Ser Tyr Glu Thr Asn Ser Asn Ala Tyr Leu 180 185 190
- Leu Leu Gln Pro Ile Arg Lys Glu Val Ile His Leu Glu Pro Tyr Ile 195 200 205
- Ala Leu Tyr His Asp Phe Val Ser Asp Ser Glu Ala Gln Lys Ile Arg 210 215 220
- Glu Leu Ala Glu Pro Trp Leu Gln Arg SerVal Val Ala Ser Gly Glu 225 230 235 240
- Lys Gln Leu Gln Val Glu Tyr Arg Ile Ser Lys Ser Ala Trp Leu Lys 245 250 255
- Asp Thr Val Asp Leu Lys Leu Val ThrLeu Asn His Arg Ile Ala Ala 260 265 270
- Leu Thr Gly Leu Asp Val Arg Pro Pro Tyr Ala Glu Tyr Leu Gln Val 275 280 285
- Val Asn Tyr Gly Ile Gly Gly His Tyr Glu Pro HisPhe Asp His Ala 290 295 300
- Thr Ser Pro Ser Ser Pro Leu Tyr Arg Met Lys Ser Gly Asn Arg Val

305 310 315 320

Ala Thr Phe Met Ile Tyr Leu Ser Ser Val Glu Ala Gly GlyAla Thr 325 330 335

Ala Phe Ile Tyr Ala Asn Leu Ser Val Pro Val Val Arg Asn Ala Ala 340 345 350

Leu Phe Trp Trp Asn Leu His Arg Ser Gly Glu Gly Asp Ser AspThr 355 360 365

Leu His Ala Gly Cys Pro Val Leu Val Gly Asp Lys Trp Val Ala Asn 370 375 380

Lys Trp Ile His Glu Tyr Gly Gln Glu Phe Arg Arg Pro Cys Ser Ser 385 390 395 400

Ser Pro Glu Asp

<210> 430

<211> 73

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring Hamino acids

<400> 430

Met Leu Val Leu Phe Lys Phe Leu Pro Leu Thr Ser Ser Gly Arg Phe 1 5 10 15

Ser Ser Val Thr Leu Tyr His Arg Val His His Gln Xaa Val Phe Ser

Gln Glu Ala Lys Ser Phe Ser Pro Ala Ser Thr Leu Asn Leu Tyr Ile $35 \hspace{1cm} 40 \hspace{1cm} 45$

Cys Ser Ser Gln Phe Gln Ser Leu Gln Lys Leu Tyr Cys Gly Val Ile 50 55 60

Pro Val Leu Arg Tyr Ala Ser Ile Glu
65 70

<210> 431

<211> 627

<212> PRT

<213> Homo sapiens

<400> 431

Met Glu Ala Arg Val Val His Ala Leu Gln Lys Arg Gln Val Ser Leu

Leu Cys Val Phe Leu Gly Val Ser Tp Ala Gly Ala Glu Pro Leu Arg 20 25 30

Tyr Phe Val Ala Glu Glu Thr Glu Arg Gly Thr Phe Leu Ala Asn Leu 35 40 45

Ala Ile Asp Leu Gly Leu Gly Val Glu Glu Leu &r Ala Arg Gly Cys 50 55 60

Arg Ile Val Ser Asp Glu Thr Ile Gly Phe Leu Leu Asn Pro Leu 65 70 75 80

Thr Gly Asp Leu Leu Leu Asn Glu Lys Leu Asp Arg Glu &u Leu Cys 85 90 95

Gly Pro Thr Glu Pro Cys Val Leu Pro Phe Gln Leu Leu Glu Lys 100 105 110

Pro Phe Gln Ile Phe Arg Ala Glu Leu Trp Val Arg Asp Ile An Asp 115 120 125

His Ser Pro Val Phe Leu Asp Arg Glu Ile Thr Leu Asn Ile Leu Glu 130 135 140

Ser Thr Thr Pro Gly Ala Thr Phe Leu Leu Glu Ser Ala His Asp Ser 145 150 155 160

Asp Val Gly Ile Asn Asn Leu Arg Asn Tyr Thr Ile Ser Ser Asn Val

Tyr Phe His Ile Asn Val His Asp Asn Gly Glu Gly Asn Val Tyr Ser 180 185 190

Glu Leu Val Leu Asp Lys Val Leu Asp Arg Glu Glu Val Pro Glu Leu 195 200 205

Arg Leu Thr Leu Thr Gly Leu Asp Gly Gly Ser Pro Pro Arg Ser Gly 210 215 220

Thr Thr Leu Ile Arg Ile Leu Val Leu Asp Ile Asn Asp Asn Val Pro 225 230 235 240

Glu Phe Val Glu Ser Leu Tyr Lys Val Gln Val Pro Glu Asn Ser Pro 245 250 255

Val Gly Ser Leu Val Val Thr Val Ser Ala Arg Asp Leu Asp Thr Gly 260 265 270

Ser Asn Gly Glu Ile Val Tyr Ala Phe Phe Tyr Ala Thr Glu Arg Thr 275 280 285

Leu Lys Thr Phe Arg Ile Asn Ser Thr Ser Gly Asn Leu His Leu Lys 290 295 300

Ala Glu Leu Asn Tyr Glu Ala Ile Gln Thr Tyr Thr Leu Thr Ile Gln

305	310	315	320
Ala Lys Asp Gly	Gly Gly Leu Ser 325	Gly Lys Cys Thr Val	Val Val His 335
Val Thr Asp Ile	Asn Asp Asn Pro	Pro Glu Leu Leu Met	Ser Ser Leu
340		345	350
Thr Ser Pro Ile	Pro Glu Asn Ser	Pro Glu Thr Val Val	
355	360	365	
Arg Ile Arg Asp	Arg Asp Ser Gly	Asn Asn Ala Lys Met	Val Cys Ser
370	375	380	
Ile Gln Asp His	Leu Pro Phe Val	Leu Lys Pro Ser Val	Glu Asn Phe
385		395	400
Tyr Thr Leu Val	Thr Glu Arg Ala	a Leu Asp Arg Glu Glu	Arg Thr Glu
	405	410	415
Tyr Asn Ile Thr 420	Ile Thr Val Thr	Asp Leu Gly Thr Pro	Arg Leu Lys 430
Thr Gln His Asn 435	Leu Thr Val Thr	Val Ser Asp Val Asr 445	
Pro Thr Phe Ser	Gin Thr Thr Tyr	Thr Leu Arg Val Arg	Glu Asn Asn
450	455	460	
Ser Pro Ala Leu	His Ile Gly Ser	r Val Ser Ala Thr Asp	Arg Asp Ser
465	470	475	480
Gly Ala Asn Ala	Gln Val Thr Tyr	Ser Leu Leu Pro Pro	His Asp Pro
	485	490	495
Gln Leu Pro Leu	Gly Ser Leu Val	Ser Ile Asn Ala Asp	Asn Gly Gln
500		505	510
Leu Phe Ala Leu 515	Arg Ser Leu Æsp 520	Phe Glu Ala Leu Gln	
Phe Arg Val Gly	Ala Ala Asp Arg	g Gly Ser Pro Ala Leu	ı Ser Ser Gln
530	535	540	
Ala Leu Val Arg	Val Leu Val Ala	a Asp Ala Asn Asp An	Ala Pro Phe
545	550	555	560
Val Leu Tyr Pro	Leu Gln Asn Gly	y Ser Ala Pro Cys Thi	r Glu Leu Val
	565	570	575
Pro Arg Ala Ala		r Leu Val Ala y s Val	Val Ala Val
580		585	590
Asp Gly Asp Ser 595	Gly Gln Asn Ala	a Trp Leu Ser Tyr Gli 0 60	_

Ala Thr Glu Pro Gly Leu Phe Gly Val Trp Ala His Asn Gly Eu Val

610 615 620

Arg Thr Ala 625

<210> 432

<211> 363

<212> PRT

<213> Homo sapiens

<400> 432

Met Lys Thr Leu Leu Leu Val Gly Leu Leu Thr Trp Glu Asn 1 5 10 15

Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu 20 25 30

Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu 50 55 60

Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys 65 70 75 80

Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala 85 90 95

Ser Gln Gly Val Cys Asn Asp Thr Met Met Ala Leu Trp Glu Glu Cys 100 105 110

Lys Pro Cys Leu Lys Gln Thr Cys Met Lys Phe Tyr Ala Arg Val Cys 115 120 125

Arg Ser Ser Thr Gly Leu Val Gly His Gln Val Glu Glu Phe Leu Asn 130 135 140

Gln Ser Ser Pro Phe Tyr Phe Trp Ile Asn Gly Asp Arg Ile Asp Ser 145 150 155 160

Leu Leu Glu Asn Asp Arg Gln Gln Thr His Ala Leu Asp Val Met Gln 165 170 175

Asp Ser Phe Asp Arg Ala Ser Ser Ile Met Asp Glu Leu Phe Gln Asp 180 185 190

Arg Phe Phe Thr Arg Glu Ala Gln Asp Pro Phe His Phe Ser Pro Phe 195 200 205

Ser Ser Phe Gln Arg Arg Pro Phe Phe Phe Asn Ile Lys His Arg Phe 210 220

Ala Arg Asn Ile Met Pro Phe Pro Gly Tyr Gln Pro Leu Asn Phe His 225 230 235 240

- Asp Met Phe Gln Pro Phe Phe Asp Met Ib His Gln Ala Gln Gln Ala 245 250 255
- Met Asp Val Asn Leu His Arg Leu Pro His Phe Pro Met Glu Phe Thr 260 265 270
- Glu Glu Asp Asn Gln Asp Gly Ala Val Cys Ly Glu Ile Arg His Asn 275 280 285
- Ser Thr Gly Cys Leu Lys Met Lys Asp Gln Cys Glu Lys Cys Arg Glu 290 295 300
- Ile Leu Ser Val Asp Cys Ser Ser Asn Asn Pro Ala Gln Val Gln Læ 305 310 315 320
- Arg Gln Glu Leu Asn Asn Ser Leu Gln Ile Ala Glu Lys Phe Thr Lys 325 330 335
- Leu Val Arg Arg Ala Ala Ala Val Leu Pro Gly Glu Asp Val $G\bar{h}$ His 340 345 350
- Val Leu Pro Ala Glu Ala Ala Gly Arg Ala Val 355 360

<210> 433

<211> 522

<212> PRT

<213> Homo sapiens

<400> 433

- Met Ala Ala Ala Met Pro Leu Ala Leu LeuVal Leu Leu Leu Gly
 1 5 10 15
- Pro Gly Gly Trp Cys Leu Ala Glu Pro Pro Arg Asp Ser Leu Arg Glu 20 25 30
- Glu Leu Val Ile Thr Pro Leu Pro Ser Gly AspVal Ala Ala Thr Phe 35 40 45
- Gln Phe Arg Thr Arg Trp Asp Ser Glu Leu Gln Arg Glu Gly Val Ser 50 60
- His Tyr Arg Leu Phe Pro Lys Ala Leu Gly Gln Leu Ile Ser Lys Tyr 65 70 75 80
- Ser Leu Arg Glu Leu His Leu Ser Phe Thr Gln Gly Phe Trp Arg Thr 85 90 95
- Arg Tyr Trp Gly Pro Pro Phe Leu Gln Ala Pro Ser Asp Thr AspHis 100 105 110
- Tyr Phe Leu Arg Tyr Ala Val Leu Pro Arg Glu Val Val Cys Thr Glu 115 120 125

Asn Leu Thr Pro Trp Lys Lys Leu Leu Pro Cys Ser Ser Lys Ala Gly Leu Ser Val Leu Leu Lys Ala Asp Arg Leu Phe His Thr Ser Tyr His Ser Gln Ala Val His Ile Arg Pro Val Cys Arg Asn Ala Arg Cys Thr 170 Ser Ile Ser Trp Glu Leu Arg Gln Thr Leu Ser Val Val Phe Asp Ala 185 1.80 Phe Ile Thr Gly Gln Gly Lys Lys Asp Trp Ser Leu Phe Arg Met Phe Ser Arg Thr Leu Thr Glu Pro Cys Pro Leu Ala Ser Glu Ser Arg Val Tyr Val Asp Ile Thr Thr Tyr Asn Gln Asp Asn Glu Thr Leu Glu Val 230 His Pro Pro Pro Thr Thr Tyr Gln Asp Val Ile Leu Gly Thr Arg Lys Thr Tyr Ala Ile Tyr Asp Leu Leu Asp Thr Ala Met Ile Asn Asn 25 Ser Arg Asn Leu Asn Ile Gln Leu Lys Trp Lys Arg Pro Pro Glu Asn Glu Ala Pro Pro Val Pro Phe Leu His Ala Gln Arg Tyr Val Ser Gly Tyr Gly Leu Gln Lys Gly Glu Leu Ser Thr Leu Leu Tyr Asn Thr His 315 310 Pro Tyr Arg Ala Phe Pro Val Leu Leu Asp Thr Val Pro Trp Tyr Leu Arg Leu Tyr Val His Thr Leu Thr Ile Thr Ser Lys Gly Lys Glu 345 Asn Lys Pro Ser Tyr Ile His Tyr Gln Pro Ala Gln Asp Arg Leu Gln Pro His Leu Glu Met Leu Ile Gln Leu Pro Ala Asn Ser Val Thr Lys Val Ser Ile Gln Phe Glu Arg Ala Leu Leu Lys Trp Thr Glu Tyr Thr Pro Asp Pro Asn His Gly Phe Tyr Val Ser Pro Ser Val Leu Ser Ala Leu Val Pro Ser Met Val Ala Ala Lys Pro Val Asp Trp Glu Glu 420 425 430

Ser Pro Leu Phe Asn Ser Leu Phe Pro Val Ser Asp Gly Ser Asn Tyr 435 440 445

Phe Val Arg Leu Tyr Thr Glu Pro Leu Leu Val Asn Leu Pro Thr Pro 450 455 460

Asp Phe Ser Met Pro Tyr Asn Val IleCys Leu Thr Cys Thr Val Val 465 470 475 480

Ala Val Cys Tyr Gly Ser Phe Tyr Asn Leu Leu Thr Arg Thr Phe His 485 490 495

Ile Glu Glu Pro Arg Thr Gly Gly Leu Ala Lys Arg Leu Ala Asn Leu 500 505 510

Ile Arg Arg Ala Arg Gly Val Pro Pro Leu
515 520

<210> 434

<211> 453

<212> PRT

<213> Homo sapiens

<400> 434

Met Arg Met Ala Ser Ile Met Val Trp Val Met Ile Ile Met Val Ile
1 5 10 15

Leu Val Leu Gly Tyr Gly Ile Phe His Cys Tyr Met Glu Tyr Ser Arg 20 25 30

Leu Arg Gly Glu Ala Gly Ser Asp Val Ser Leu Val Asp Leu Gly Phe 35 40 45

Gln Thr Asp Phe Arg Val Tyr Leu His Leu Arg Gln Thr Trp Leu Ala 50 55 60

Phe Met Ile Ile Leu Ser Ile Leu Glu ValIle Ile Ile Leu Leu 65 70 75 80

Ile Phe Leu Arg Lys Arg Ile Leu Ile Ala Ile Ala Leu Ile Lys Glu 85 90 95

Ala Ser Arg Ala Val Gly Tyr Val MetCys Ser Leu Leu Tyr Pro Leu 100 105 110

Val Thr Phe Phe Leu Leu Cys Leu Cys Ile Ala Tyr Trp Ala Ser Thr 115 120 125

Ala Val Phe Leu Ser Thr Ser Asn Glu Ala Val TyrLys Ile Phe Asp 130 135 140

Asp Ser Pro Cys Pro Phe Thr Ala Lys Thr Cys Asn Pro Glu Thr Phe 145 150 155 160

Pro Ser Ser Asn Glu Ser Arg Gln Cys Pro Asn Ala Arg CysGln Phe

165 170 175 Ala Phe Tyr Gly Glu Ser Gly Tyr His Arg Ala Leu Leu Gly Leu 185 Gln Ile Phe Asn Ala Phe Met Phe Phe Trp Leu Ala Asn Phe ValLeu Ala Leu Gly Gln Val Thr Leu Ala Gly Ala Phe Ala Ser Tyr Tyr Trp 215 Ala Leu Arg Lys Pro Asp Asp Leu Pro Ala Phe Pro Leu Phe Ser Ala · 230 235 Phe Gly Arg Ala Leu Arg Tyr His Thr Gly Ser Leu Ala Phe Gly Ala 250 Leu Ile Leu Ala Ile Val Gln Ile Ile Arg Val Ile Leu Glu Tyr Leu Asp Gln Arg Leu Lys Ala Ala Glu Asn Lys Phe Ala Lys Cys Leu Met Thr Cys Leu Lys Cys Cys Phe Trp Cys Leu Glu Lys Phe Ile Lys Phe Leu Asn Arg Asn Ala Tyr Ile Met Ile Ala Ile Tyr Gly Thr Asn Phe 310 315 Cys Thr Ser Ala Arg Asn Ala Phe Phe Leu Leu Met Arg Asn Ile Ile Arg Val Ala Val Leu Asp Lys Val Thr Asp Phe Leu Phe Leu Gly Lys Leu Leu Ile Val Gly Ser Val Gly Ile Leu Ala Phe Phe Phe Phe 360 Thr His Arg Ile Arg Ile Val Gln Asp Thr Ala Pro Pro Leu Asn Tyr Tyr Trp Val Pro Ile Leu Thr Val Ile Val Gly Ser Tyr Leu Ile Ala 390 395 His Gly Phe Phe Ser Val Tyr Gly Met Cys Val Asp Thr Leu Phe Leu 405 Cys Phe Leu Glu Asp Leu Glu Arg Asn Asp Gly Ser Ala Glu Arg Pro Tyr Phe Met Ser Ser Thr Leu Lys Lys Leu Leu Asn Lys Thr Asn Lys 440 Lys Ala Ala Glu Ser 450

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<210> 435
<211> 967
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (40)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (169)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (293)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (297)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (547)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 435
Met Gln Arg Ala Val Pro Glu Gly Phe Gly Arg Arg Lys Leu Gly Ser
Asp Met Gly Asn Ala Glu Arg Ala Pro Gly Ser Arg Ser Phe Gly Pro
             20
Val Pro Thr Leu Leu Leu Xaa Ala Ala Leu Leu Xaa Val Ser Asp
                              40
Ala Leu Gly Arg Pro Ser Glu Glu Asp Glu Glu Leu Val Val Pro Glu
Leu Glu Arg Ala Pro Gly His Gly Thr Thr Arg Leu Arg Leu His Ala
Phe Asp Gln Gln Leu Asp Leu Glu Leu Arg Pro Asp Ser Ser Phe Leu
Ala Pro Gly Phe Thr Leu Gln Asn Val Gly Arg Lys Ser Gly Ser Glu
            100
                                 105
                                                     110
```

Thr Pro Leu Pro Glu Thr Asp Leu Ala His Cys Phe Tyr Ser Gly Thr 120 Val Asn Gly Asp Pro Ser Ser Ala Ala Ala Leu Ser Leu Cys Glu Gly 135 Val Arg Gly Ala Phe Tyr Leu Leu Gly Glu Ala Tyr Phe Ile Gln Pro 155 Leu Pro Ala Ala Ser Glu Arg Leu Xaa Thr Ala Ala Pro Gly Glu Lys 170 Pro Pro Ala Pro Leu Gln Phe His Leu Leu Arg Arg Asn Arg Gln Gly 185 180 Asp Val Gly Gly Thr Cys Gly Val Val Asp Asp Glu Pro Arg Pro Thr Gly Lys Ala Glu Thr Glu Asp Glu Asp Glu Gly Thr Glu Gly Glu Asp Glu Gly Pro Gln Trp Ser Pro Gln Asp Pro Ala Leu Gln Gly Val Gly Gln Pro Thr Gly Thr Gly Ser Ile Arg Lys Lys Arg Phe Val Ser Ser 250 His Arg Tyr Val Glu Thr Met Leu Val Ala Asp Gln Ser Met Ala Glu 265 Phe His Gly Ser Gly Leu Lys His Tyr Leu Leu Thr Leu Phe Ser Val Ala Ala Arg Leu Xaa Lys His Bro Xaa Ile Arg Asn Ser Val Ser Leu 295 Val Val Val Lys Ile Leu Val Ile His Asp Glu Gln Lys Gly Pro Glu 315 310 Val Thr Ser Asn Ala Ala Leu Thr Leu Arg Asn Phe Cys Asn Trp Gln Lys Gln His Asn Pro Pro Ser Asp Arg Asp Ala Glu His Tyr Asp Thr 345 Ala Ile Leu Phe Thr Arg Gln Asp Leu Cys Gy Ser Gln Thr Cys Asp Thr Leu Gly Met Ala Asp Val Gly Thr Val Cys Asp Pro Ser Arg Ser 375 Cys Ser Val Ile Glu Asp Asp Gly Leu Gln Ala Ala Phe Thr Thr Aa His Glu Leu Gly His Val Phe Asn Met Pro His Asp Asp Ala Lys Gln

415

410

Cys Ala Ser Leu Asn Gly Val Asn Gln Asp Ser His Met Met Aa Ser 425 Met Leu Ser Asn Leu Asp His Ser Gln Pro Trp Ser Pro Cys Ser Ala 440 Tyr Met Ile Thr Ser Phe Leu Asp Asn Gly His Gly Glu Cys Leu Met 455 Asp Lys Pro Gln Asn Pro Ile Gln Leu Pro Gly Asp Leu Pro Gly Thr 475 Ser Tyr Asp Ala Asn Arg Gln Cys Gln Phe Thr Phe Gly Glu Asp Ser 485 490 Lys His Cys Pro Asp Ala Ala Ser Thr Cys Ser Thr Leu Trp Cys Thr 505 Gly Thr Ser Gly Gly Val Leu Val Cys Gln Thr Lys His Phe Pro Trp Ala Asp Gly Thr Ser Cys Gly Glu Gly Lys Trp Cys Ile Asn Gly Lys Cys Val Xaa Lys Thr Asp Arg Lys His Phe Asp Thr Pro Phe His Gly Ser Trp Gly Met Trp Gly Pro Trp Gly Asp Cys Ser Arg Thr Cys Gly Gly Gly Val Gln Tyr Thr Met Arg Glu Cys Asp Asn Pro Val Pro Lys 585 Asn Gly Gly Lys Tyr Cys Glu Gly Lys Arg Val Arg Tyr Arg Ser Cys 600 605 Asn Leu Glu Asp Cys Pro Asp Asn Asn Gly Lys Thr Phe Arg Glu Glu 615 Gln Cys Glu Ala His Asn Glu Phe Ser Lys Ala Ser Phe Gly Ser Gly Pro Ala Val Glu Trp Ile Pro Lys Tyr Ala Gly Val Ser Pro Lys Asp Arg Cys Lys Leu Ile Cys Gln Ala Lys Gly Ile Gly Tyr Phe Phe Val Leu Gln Pro Lys Val Val Asp Gly Thr Pro Cys Ser Pro Asp Ser Thr 680 Ser Val Cys Val Gln Gly Gln Cys Val Lys Ala Gly Cys Asp Arg Ile Ile Asp Ser Lys Lys Phe Asp Lys Cys Gly Val Cys Gly Gly Asn 710 715

- Gly Ser Thr Cys Lys Lys Ile Ser Gly Ser Val Thr Ser Ala Lys Pro
 725 730 735
- Gly Tyr His Asp Ile Ile Thr Ile Pro Thr Gly Ala Thr Asn Ile Glu
 740 745 750
- Val Lys Gln Arg Asn Gln Arg Gly Ser Arg Asn Asn Gly Ser Phe Leu 755 760 765
- Ala Ile Lys Ala Ala Asp Gly Thr Tyr Ile Leu Asn Gly Asp Tyr Thr 770 775 780
- Leu Ser Thr Leu Glu Gln Asp Ile Met Tyr Lys Gly Val Val Leu Arg 785 790 795 800
- Tyr Ser Gly Ser Ser Ala Ala Leu Glu Arg Ile Arg Ser Phe Ser Pro 805 810 815
- Leu Lys Glu Pro Leu Thr Ile Gn Val Leu Thr Val Gly Asn Ala Leu 820 825 830
- Arg Pro Lys Ile Lys Tyr Thr Tyr Phe Val Lys Lys Lys Glu Ser 835 840 845
- Phe Asn Ala Ile Pro Thr Phe Ser Ala Trp W1 Ile Glu Glu Trp Gly 850 855 860
- Glu Cys Ser Lys Ser Cys Glu Leu Gly Trp Gln Arg Arg Leu Val Glu 865 870 875 880
- Cys Arg Asp Ile Asn Gly Gln Pro Ala Ser Glu Cys Aa Lys Glu Val 885 890 895
- Lys Pro Ala Ser Thr Arg Pro Cys Ala Asp His Pro Cys Pro Gln Trp 900 905 910
- Gln Leu Gly Glu Trp Ser Ser Cys Ser Lys Thr Cys Gly ⊈s Gly Tyr 915 920 925
- Lys Lys Arg Ser Leu Lys Cys Leu Ser His Asp Gly Gly Val Leu Ser 930 935 940
- His Glu Ser Cys Asp Pro Leu Lys Lys Pro Lys His Phe Ile Asp Phe 945 950 955 960
- Cys Thr Met Ala Glu Cys Ser 965

<210> 436

<211> 174

<212> PRT

<213> Homo sapiens

<400> 436

```
Met Tyr Val Arg Phe Phe Phe Arg Leu His Ser Ile Ser Ser His Pro
1 5 10 15
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Ser Gly Ile Val Ser Leu Cys Leu Leu Phe Glu Thr Leu Leu Gln Thr 20 . 25 30

Tyr Leu Pro Gln Leu Phe Tyr His Leu Arg Glu Ile Gly Ala Gln Pro 35 40 45

Leu Arg Ile Ser Phe Lys Trp Met Val Arg Ala Phe Ser Gly Tyr Leu 50 60

Ala Thr Asp Gln Leu Leu Leu Leu Trp Asp Arg Ile Leu Gly Tyr Asn 65 70 75 80

Ser Leu Glu Ile Leu Ala Val Leu Ala Ala Ala Val Phe Ala Phe Arg 85 90 95

Ala Val Asn Leu Met Glu Val Thr Ser Leu Ala Ala Ala Glu Asn Leu 100 105 110

Ala Ala His Ser Glu Gln Phe Cys Thr Ala Pro Leu Phe Pro Glu Leu 115 120 125

Tyr Arg Val Gln Ile Pro Val Leu Leu Asn Ser Gly Arg Lys Lys Ser 130 135 140

Ala Val Tyr Trp Thr Pro Ile Ser Phe Asn Arg Thr Lys Lys Leu Arg 145 150 155 160

Leu Gln Gly Arg Thr Tyr Asn Asp Gly Ser Trp Asn Ile Thr 165 170

<210> 437

<211> 62

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 437

Met Gln Pro Ala Trp Leu Trp Leu Trp Xaa Trp Glu Leu Gly Trp Glu

1 5 10 15

Leu Val Phe Gly Ala Ile Leu Leu Xaa LeuGln Asp Gly Leu Phe Asp
20 25 30

Ser Val Leu Tyr Cys Xaa His Leu Tyr Ser Gly Leu Phe Phe Pro Trp 35 40 45

Ile Val Asn Ser Leu Met Ser Gly Ser Ser Gln Leu MetSer 50 55 60

<210> 438

<211> 48

<212> PRT

<213> Homo sapiens

<400> 438

Met Met Leu Tyr Gln Asn Met Leu Leu Tyr Phe Arg Ile Ile Gly Val 1 5 10 15

Leu Ala Leu Asn Phe Ser Ile Ser Pro Ile Phe Phe His Gly Ser Leu 20 25 30

Gly Lys Leu Tyr Val Tyr Ser Ala Ala Lys Tyr Ser Leu Glu Leu Lys 35 40 45

<210> 439

<211> 174

<212> PRT

<213> Homo sapiens

<400> 439

Met Val Pro Asn Trp Ile Gln Gly Arg Trp Asp Val Leu Leu Cys Val 1 5 10 15

Leu Thr Val Gly Val Leu Pro Ser Ile Gly Ser Arg Gly Gly Trp Phe 20 25 30

Gly Thr Gln Val Pro Cys Leu Ile Pro Gly Ala Leu Ala Ser Leu His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Arg Gly Thr Ala Leu Gln Leu Ser Tyr Pro Phe Ser Met Ala Gly Arg 50 $\,$ 55 $\,$ 60 $\dot{}$

Thr Ala Glu Arg Pro Cys Ser Met Thr Asn His Ser Phe His Leu Leu 65 70 75 80

Ser Ile Tyr Trp Glu Leu Gly Thr Val Leu Ser Val Lys Arg Val Leu 85 90 95

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Thr His Leu Leu Gln Gln Pro Gly Lys Ala Gly Ser Ser Val Ser Pro
100 105 110
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Cys Ser Lys Leu Gly Asp Leu Glu His Arg Arg Ser Ser Ala Trp Leu 115 120 125

Lys Ala His Ser Ser Glu Val Gln Ile Leu Cys Pro Ser Trp His Pro 130 135 140

Ser Leu Gly Gly Ser Gly Val Gly Ser Leu Gln Ser Val Pro Gly Gly 145 150 155 160

Trp Met Thr Ser Cys Ser Leu Pro Ala Thr Pro Arg Phe Pro 165 170

<210> 440

<211> 59

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 440

Met Ile Gly Leu Thr Ile Ile Ala Cys Phe Ala Val Ile Val Ser Ala 1 5 10 15

Lys Arg Ala Val Glu Arg His Glu Ser Leu Thr Ser Trp Asn Leu Ala 20 25 30

Lys Lys Ala Lys Xaa Arg Glu Glu Ala Ala Leu Ala Ala Gln Ala Lys 35 40 45

Ala Asn Asp Ile Leu Ser Asp Lys Val Phe Thr 50 55

<210> 441

<211> 387

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (228)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (359)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 441 Met Gly Ala Phe Leu Asp Lys Pro Lys Thr Glu Lys His Asn Ala His Gly Ala Gly Asn Gly Leu Arg Tyr Gly Leu Ser Ser Met Gln Gly Trp Arg Val Glu Met Glu Asp Ala His Thr Ala Val Val Gly Ile Pro His Gly Leu Glu Asp Trp Ser Phe Phe Ala Val Tyr Asp Gly His Ala Gly Ser Arg Val Ala Asn Tyr Cys Ser Thr His Leu LeuGlu His Ile Thr Thr Asn Glu Asp Phe Arg Ala Ala Gly Lys Ser Gly Ser Ala Leu Glu Leu Ser Val Glu Asn Val Lys Asn Gly Ile ArgThr Gly Phe Leu Lys 105 Ile Asp Glu Tyr Met Arg Asn Phe Ser Asp Leu Arg Asn Gly Met Asp 120 Arg Ser Gly Ser Thr Ala Val Gly Val Met Ile Ser Pro LysHis Ile 135 Tyr Phe Ile Asn Cys Gly Asp Ser Arg Ala Val Leu Tyr Arg Asn Gly 155 Gln Val Cys Phe Ser Thr Gln Asp His Lys Pro Cys Asn Pro Arg Glu Lys Glu Arg Ile Gln Asn Ala Gly Gly Ser Val Met Ile Gln Arg Val 185 Asn Gly Ser Leu Ala Val Ser Arg Ala Leu Gly Asp Tyr Asp Tyr Lys Cys Val Asp Gly Lys Gly Pro Thr Glu Gln Leu Val Ser Pro Glu Pro 215 Glu Val Tyr Xaa Ile Leu Arg Ala Glu Glu Asp Glu Phe Ile Ile Leu 235 Ala Cys Asp Gly Ile Trp Asp Val Met Ser Asn Glu Glu Leu Cys Glu Tyr Val Lys Ser Arg Leu Glu Val Ser Asp Asp Leu Glu Asn Val Cys

Asn Trp Val Val Asp Thr Cys Leu His Lys Gly Ser Arg Asp Asn Met

Ser Ile Val Leu Val Cys Phe Ser Asn Ala Pro Lys Val Ser Asp Glu

295

300

Ala Val Lys Lys Asp Ser Glu Leu Asp Lys His Leu Glu Ser Arg Val 305 310 315 320

Glu Glu Ile Met Glu Lys Ser Gly Glu Glu Gly Met Pro Asp Leu Ala 325 330 335

His Val Met Arg Ile Leu Ser Ala Glu Asn Ile Pro Asn Leu Pro Pro 340 345 350

Gly Gly Leu Ala Gly Xaa Arg Asn Val Ile Glu Ala Val Tyr Ser 355 360 365

Arg Leu Asn Pro His Arg Glu Ser Asp Gly Gly Ala Gly Asp Leu Glu 370 380

Asp Pro Trp 385

<210> 442

<211> 59

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 442

Met Asn Cys Asp Val Leu Trp Cys Val Leu Leu Leu Val Cys Xaa Ser 1 10 15

Leu Phe Ser Ala Val Gly His Gly Leu Trp Ile Trp Arg Tyr Gln Glu
20 25 30

Lys Lys Ser Leu Phe Tyr Val Pro Lys Ser Asp Gly Ser Ser Leu Ser 35 40 45

Pro Val Thr Ala Ala Val Asn Ser Phe Leu Thr 50 55

<210> 443

<211> 52

<212> PRT

<213> Homo sapiens

<400> 443

Met Gln Arg Leu Gly Lys Ala Pro Gly Thr Trp Gln Ala Ile Ser Lys $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Cys Trp Leu Leu Leu Leu Ser Leu Pro Phe Ser Gln Ser Ile Ile
20 25 30

```
Ile Ser Leu Arg Ala Gly Thr Met Ser Tyr Leu Pro Leu Tyr Phe Pro
                             40
Gln Tyr Phe Pro
    50
<210> 444
<211> 78
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 444
Met Phe Gly Ala His Arg Xaa Trp Gln Gly Ser Val Leu Leu Phe Leu
Ser Phe Ala Trp Gly Asn Gly Gly Ser Val Thr Phe Ser Asp Val Pro
Arg Val Met Pro Leu Ala Gly Gly Pro Xaa Xaa Gln Val Ser Ser Thr
         35
                             40
Pro Arg Pro Pro Pro His Gln Val Thr Ser Ser Pro Gly Leu Glu Ser
Ala His Ile Val Cys Pro Glu Arg Lys Lys Lys Lys Lys
<210> 445
<211> 53
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 445

Met Cys Lys Ala Val Cys Lys His Arg Leu Xaa Leu Phe Ala Val Ser 1 5 10 15

Ser Phe Ser Leu Gly Leu Gly Trp Val Cys Val Leu Val Leu Met Leu 20 25 30

Trp Pro Val Arg Leu Ser Leu Ala Pro Arg Pro Val Gln Leu Gln Gln
35 40 45

Arg Arg Ser His Cys 50

<210> 446

<211> 83

<212> PRT

<213> Homo sapiens

<400> 446

Met Lys Lys Val Cys Trp Val Trp Ala Leu Ala His Leu Val Leu Cys
1 10 15

Glu Arg Trp Leu Thr Ala Gly Cys Leu Leu Tyr Val Gly Val Ile Gln
20 25 30

Pro Cys Lys Gly Ser Pro Ser Ser Val Cys Lys Ala Arg Arg Cys Leu 35 40 45

His Pro Lys Tyr Arg Ile Lys Arg Tyr Gly Tyr Tyr Lys Tyr Ser Val
50 55 60

Arg Leu Ile Ile Cys His His Pro His Ala Leu Lys Ala Glu Leu
65 70 75 80

Thr Asp Asp

<210> 447

<211> 58

<212> PRT

<213> Homo sapiens

<400> 447

Met Pro Phe Ala Trp Asn Asp Leu Thr Ser Leu Leu Phe TyrLeu Ala 1 5 10 15

Gly Cys Phe Ser Ser Cys Arg Leu Gly Gln Gly Thr Pro Gly Ser Leu 20 25 30

Pro Trp Thr Ser Asn Glu Glu Gly Ile Ile Gln Gly Pro Thr ProMet

Phe Trp Asn Leu Thr Pro Phe Ser Gly Thr

50 55

<210> 448

<211> 57

<212> PRT

<213> Homo sapiens

<400> 448

Met Val Tyr Arg Ala Phe Leu Ile Ile Ile Leu Arg Phe Ie Leu Ile 1 5 10 15

Phe Leu Phe Lys Leu Asn Tyr Ser Lys Leu Cys Pro Glu Ile Pro Phe 20 25 30

Gly Leu Lys Phe Phe Ser Phe Val Cys Ile Lys Val Gln Ile \slash s Lys 35 40 45

Thr Ser Arg Lys Arg Arg Pro Tyr Leu
50 55

<210> 449

<211> 63

<212> PRT

<213> Homo sapiens

<400> 449

Met Cys Tyr Phe Leu Glu Ile Ser Leu Leu Met Val Phe AlaLeu Asn 1 5 10 15

Ile Lys Ala Ala Tyr Gly Cys Cys Asn Ile Asn Gly Thr Glu Val His

Arg Ala Lys Gly Pro Val Ser Val Pro Phe Pro Leu Ser Arg ProLeu 35 40 45

Ser Gly Thr Pro Leu Leu Asp Arg Leu Arg Pro Phe Gln Thr Leu 50 55 60

<210> 450

<211> 122

<212> PRT

<213> Homo sapiens

<400> 450

Met Tyr Arg Ala Ile Asp Ser Phe Pro Arg Trp Arg Ser Tyr Phe Tyr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Phe Ile Thr Leu Ile Phe Phe Leu Ala Trp Leu Val Lys Asn Val Phe 20 25 30

Ile Ala Val Ile Ile Glu Thr Phe Ala Glu Ile Arg Val Gln Phe Gln

35 40 45

Gln Met Trp Gly Ser Arg Ser Ser Thr Thr Ser Thr Ala Thr Thr Gln
50 55 60

Met Phe His Glu Asp Ala Ala Gly GlyTrp Gln Leu Val Ala Val Asp 65 70 75 80

Val Asn Lys Pro Gln Gly Arg Ala Pro Ala Cys Leu Gln Val Gln Tyr 85 90 95

Asn Asp Ile Phe Lys Asn Arg Pro Ala Lys Val Phe Glu Phe Tyr Phe 100 105 110

Ile Gln Glu Asn Pro Gln Leu Phe Lys Leu 115 120

<210> 451

<211> 152

<212> PRT

<213> Homo sapiens

<400> 451

Gly Leu Ile Ala Leu Asp Cys Pro Ser Glu Leu Cys Arg Leu Tyr Thr $20 \\ 25 \\ 30$

Gln Phe Gln Glu Pro Tyr Leu Lys Asp Pro Ala Ala Tyr Pro Lys Ile $35 \hspace{1cm} 40 \hspace{1cm} 45$

Gln Met Leu Ala Tyr Met Phe Tyr Ser Val Pro Tyr Phe Val Thr Ala 50 60

Leu Tyr Gly Leu Val Val Pro Gly Cys Ser Tp Met Pro Asp Ile Thr 65 70 75 80

Leu Ile His Ala Gly Gly Leu Ala Gln Ala Gln Phe Ser His Ile Gly 85 90 95

Ala Ser Leu His Ala Arg Thr Ala Tyr Val Tyr Arg Val Pro Glu Glu
100 105 110

Ala Lys Ile Leu Phe Leu Ala Leu Asn Ile Ala Tyr Gly Val Leu Pro 115 120 125

Gln Leu Leu Ala Tyr Arg Cys Ile Tyr Lys Pro Glu Re Phe Ile Lys 130 135 140

Thr Lys Ala Glu Glu Lys Val Glu 145 150

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<210> 452
<211> 135
<212> PRT
<213> Homo sapiens
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<400> 452

Met Gly Leu Trp Leu Gly Met Leu Ala Cys Val Phe Leu Ala Th Ala 1 5 10 15

Ala Phe Val Ala Tyr Thr Ala Arg Leu Asp Trp Lys Leu Ala Ala Glu 20 25 30

Glu Ala Lys Lys His Ser Gly Arg Gln Gln Gln Arg Ala Glu Se 35 40 45

Thr Ala Thr Arg Pro Gly Pro Glu Lys Ala Val Leu Ser Ser Val Ala 50 55 60

Thr Gly Ser Ser Pro Gly Ile Thr Leu Thr Thr Tyr Ser Arg Ser Glu 65 70 75 80

Cys His Val Asp Phe Phe Arg Thr Pro Glu Glu Ala His Ala Leu Ser 85 90 95

Ala Pro Thr Ser Arg Leu Ser Val Lys Gln Leu Val Ile Arg Arg Gly
100 105 110

Ala Ala Leu Gly Ala Ala Ser Ala Thr Leu Met Val Gly Leu Thr Val 115 120 125

Arg Ile Leu Ala Thr Arg His 130 135

<210> 453 <211> 9 <212> PRT <213> Homo sapiens

<400> 453 Met Ser Leu Gln Ser Arg Gly Ser Asn 1 5

<210> 454 <211> 72 <212> PRT <213> Homo sapiens

Lys Pro Leu Arg Asn Tyr Leu Lys Thr Ser Glu Thr Thr Met Glu Lys 20 25 30

Ile Ile Ile Gln Lys Leu Val Ala Asn Leu Lys Phe Leu Pro Leu Gly
. 35 40 45

Thr Leu Gln Leu Ala Met Met Ile Ala Asn Leu Ile Lys Lys Leu Phe 50 55 60

Phe Pro Leu Val Lys Ala Ala Lys 65 70

<210> 455

<211> 62

<212> PRT

<213> Homo sapiens

<400> 455

Met Glu Pro Glu Ser Trp Ala Leu Cys Leu Leu Phe Leu Gly Thr
1 5 10 15

Ala Leu Gly Tyr Pro Pro Leu Pro Arg His Ser Ser Lys Cys Glu Ile 20 25 30

Leu Glu Val Arg Leu His Leu Leu Pro Leu Leu Ile Asn Ile Gly Met
35 40 45

Met Ser Pro Val Ala Ser Pro Phe Val Cys Ser Ile Thr Gly 50 60

<210> 456

<211> 606

<212> PRT

<213> Homo sapiens

<400> 456

Met Thr Val Val Gly Asn Pro Arg Ser Trp Ser Cys Gln Trp Leu Pro $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ile Leu Ile Leu Leu Gly Thr Gly His Gly Pro Gly Val Glu Gly $20 \\ \hspace{1.5cm} 25 \\ \hspace{1.5cm} 30$

Val Thr His Tyr Lys Ala Gly Asp Pro Val Ile Leu Tyr Val Asn Lys 35 40 45

Val Gly Pro Tyr His Asn Pro Gln Glu Thr Tyr His Tyr Tyr Gln Leu 50 55 60

Pro Val Cys Cys Pro Glu Lys Ile Arg His Lys Ser Leu Ser Leu Gly 65 70 75 80

Glu Val Leu Asp Gly Asp Arg Met Ala Glu Ser Leu Tyr Glu Ile Arg 85 90 95

Phe Arg Glu Asn Val Glu Lys Arg Ile Leu Cys His Met Gln Leu Ser

			100					105					110		
Ser	Ala	Gln 115	Val	Glu	Gln	Leu	Arg 120	Gln	Ala	Ile		Glu 125	Leu	Tyr	Tyr
Phe	Glu 130	Phe	Val	Val	Asp	Asp 135	Leu	Pro	Ile	Arg	Gly 140	Phe	Val	Gly	Tyr
Met 145	Glu	Glu	Ser	Gly	Phe 150	Leu	Pro	His	Ser	His 155	Lys	Ile	Gly		Trp 160
Thr	His	Leu	Asp	Phe 165	His	Leu	Glu	Phe	His 170	Gly	Asp	Arg	Ile	Ile 175	Phe
Ala	Asn	Val	Ser 180	Val	Arg	Asp	Val	Lys 185	Pro	His	Ser		Asp 190	Gly	Leu
Arg	Pro	Asp 195	Glu	Phe	Leu	Gly	Leu 200	Thr	His	Thr	Tyr	Ser 205	Val	Arg	Trp
Ser	Glu 210	Thr	Ser	Val	Glu	Arg 215	Arg	Ser	Asp	Arg	Arg 220	Arg	Gly	Asp	Asp
Gly 225	Gly	Phe	Phe	Pro	Arg 230	Thr	Leu	Glu	Ile	His 235	Trp	Leu	Ser	Ile	Ile 240
Asn	Ser	Met	Val	Leu 245	Val	Phe	Leu	Leu	Val 250	Gly	Phe	Val	Ala	Val 255	Il∈
Leu	Met	Arg	Val 260	Leu	Arg	Asn	Asp	Leu 265	Ala	Arg	Tyr	Asn	Leu 270	Asp	Glu
Glu	Thr	Thr 275	Ser	Ala	Gly	Ser	Gly 280	Asp	Asp	Phe	Asp	Gln 285	Gly	Asp	Asn
Gly	Trp 290	Lys	Ile	Ile	His	Thr 295	Asp	Val	Phe	Arg	Phe 300	Pro	Pro	Tyr	Arg
Gly 305	Leu	Leu	Cys	Ala	Val 310	Leu	Gly	Val	Gly	Ala 315	Gln	Phe	Leu	Ala	Leu 320
Gly	Thr	Gly	Ile	Ile 325	Val	Met	Ala	Leu	Leu 330	Gly	Met	Phe	Asn	Val 335	His
Arg	His	Gly	Ala 340	Ile	Asn	Ser	Ala	Ala 345	Ile	Leu	Leu	Tyr	Ala 350	Leu	Thr
Cys	Cys	Ile 355	Ser	Gly	Tyr	Val	Ser 360	Ser	His	Phe	Tyr	Arg 365	Gln	Ile	Gly
Gly	Glu 370	Arg	Trp	Val	Trp	Asn 375	Ile	Ile	Leu	Thr	Thr 380		Leu	Phe	Ser
Val	Pro	Phe	Phe	Leu	Thr	-	Ser	Val	Val	Asn		Val	His	Trp	Ala 400

Asn Gly Ser Thr Gln Ala Leu Pro Ala Thr Thr Ile Leu Leu Leu

405 410 415

Thr Val Trp Leu Leu Val Gly Phe Pro Leu Th Val Ile Gly Gly Ile 420 425 430

Phe Gly Lys Asn Asn Ala Ser Pro Phe Asp Ala Pro Cys Arg Thr Lys 435 440 445

Asn Ile Ala Arg Glu Ile Pro Pro Gln Pro Trp Tyr Lys Sm Thr Val 450 455 460

Ile His Met Thr Val Gly Gly Phe Leu Pro Phe Ser Ala Ile Ser Val 465 470 475 480

Glu Leu Tyr Tyr Ile Phe Ala Thr Val Trp Gly Arg Glu Gln Tyr Th485 490 495

Leu Tyr Gly Ile Leu Phe Phe Val Phe Ala Ile Leu Leu Ser Val Gly 500 505 510

Ala Cys Ile Ser Ile Ala Leu Thr Tyr Phe Gln Leu Ser Gly Glu Asp 515 520 525

Tyr Arg Trp Trp Trp Arg Ser Val Leu Ser Val Gly Ser Thr Gly Leu 530 540

Phe Ile Phe Leu Tyr Ser Val Phe Tyr Tyr Ala Arg Arg Ser Asn Met 545 555 560

Ser Gly Ala Val Gln Thr Val Glu Phe Phe Gly Tyr Ser Leu Leu Thr 565 570 575

Gly Tyr Val Phe Phe Leu Met Leu Gly Thr Ile Ser Phe Phe Ser Ser 580 585 590

Leu Lys Phe Ile Arg Tyr Ile Tyr Val Asn Leu Lys Met Asp 595 600 605

<210> 457

<211> 295

<212> PRT

<213> Homo sapiens

<400> 457

Met Gly Leu Pro Val Ser Trp AlaPro Pro Ala Leu Trp Val Leu Gly
1 5 10 15

Cys Cys Ala Leu Leu Ser Leu Trp Ala Leu Cys Thr Ala Cys Arg 20 25 30

Arg Pro Glu Asp Ala Val Ala Pro ArgLys Arg Ala Arg Arg Gln Arg 35 40 45

Ala Arg Leu Gln Gly Ser Ala Thr Ala Ala Glu Ala Ser Leu Leu Arg 50 55 60 Arg Thr His Leu Cys Ser Leu Ser Lys Ser Asp Thr Arg LeuHis Glu Leu His Arg Gly Pro Arg Ser Ser Arg Ala Leu Arg Pro Ala Ser Met Asp Leu Leu Arg Pro His Trp Leu Glu Val Ser Arg AspIle Thr Gly 105 Pro Gln Ala Ala Pro Ser Ala Phe Pro His Gln Glu Leu Pro Arg Ala 120 Leu Pro Ala Ala Ala Thr Ala Gly Cys Ala Gly Leu Glu Ala Thr 135 Tyr Ser Asn Val Gly Leu Ala Ala Leu Pro Gly Val Ser Leu Ala Ala Ser Pro Val Val Ala Glu Tyr Ala Arg Val Gln Lys Arg Lys Gly Thr 170 165 His Arg Ser Pro Gln Glu Pro Gln Gln Gly Lys Thr Glu Val Thr Pro 185 Ala Ala Gln Val Asp Val Leu Tyr Ser Arg Val Cys Lys Pro Lys Arg Arg Asp Pro Gly Pro Thr Thr Asp Pro Leu Asp Pro Lys Gly Gln Gly Ala Ile Leu Ala Leu Ala Gly Asp Leu Ala Tyr Gln Thr Leu Pro Leu Arg Ala Leu Asp Val Asp Ser Gly Pro Leu Glu Asn Val Tyr Glu Ser Ile Arg Glu Leu Gly Asp Pro Ala Gly Arg Ser Ser Thr Cys Gly Ala

Pro Leu Pro Ala Ser Leu Pro, 290 295

<210> 458

<211> 45

<212> PRT

<213> Homo sapiens

275

<400> 458

Met Arg Pro Val Cys Ser Leu Gly Trp Ala Gly Trp Pro Gly Leu Val 1 5 10 15

Gly Thr Pro Pro Ala Ser Ser Cys Pro Ser Leu Gly Arg Gly Trp Arg

280

285

Cys Gly Leu Arg Ala Leu Leu Gly Pro Ser Leu Phe Pro Val Thr Phe 20 25 30

Gly Ala Thr Glu Ala Val His Ser Leu Asp Val Cys Ser 35 40 45

<210> 459

<211> 56

<212> PRT

<213> Homo sapiens

<400> 459

Met Arg Phe Trp Phe Leu Val Phe Cys Phe Phe Phe ProGlu Ala 1 5 10 15

His Val Tyr Pro Thr Ser Trp Ser Val Ser Glu Gln Gly Cys Ala Thr
20 25 30

Ile Ser Val Thr Pro Gly Ile Leu Asn Trp Ile Phe Val Glu GluGlu 35 40 45

Asn Asn Thr Val Leu Asp Phe Pro

<210> 460

<211> 305

<212> PRT

<213> Homo sapiens

<400> 460

Met Ala Ala Gly Leu Ala Arg Leu Leu Leu Leu Gly Leu SerAla 1 5 10 15

Gly Gly Pro Ala Pro Ala Gly Ala Ala Lys Met Lys Val Val Glu Glu 20 25 30

Pro Asn Ala Phe Gly Val Asn Asn Pro Phe Leu Pro Gln Ala Ser Arg 35 40 45

Leu Gln Ala Lys Arg Asp Pro Ser Pro Val Ser Gly Pro Val His Leu 50 55 60

Phe Arg Leu Ser Gly Lys Cys Phe Ser Leu Val Glu Ser Thr Tyr Lys 65 70 75 80

Tyr Glu Phe Cys Pro Phe His Asn Val Thr Gln His Glu Gln Thr Phe 85 90 95

Arg Trp Asn Ala Tyr Ser Gly Ile Leu Gly Ile Trp His Glu Trp Glu
100 105 110

Ile Ala Asn Asn Thr Phe Thr Gly Met Trp Met Arg Asp Gly Asp Ala 115 120 125 Cys Arg Ser Arg Ser Arg Gln Ser Lys Val Glu Leu Ala Cys Gly Lys . 130 135 140

Leu Thr Phe Glu Thr Pro Leu Val Cys His Pro His Ala Leu Leu Val 165 170 175

Tyr Pro Thr Leu Pro Glu Ala Leu Gln Arg Gln Trp Asp Gln Val Glu 180 185 190

Gln Asp Leu Ala Asp Glu Leu Ile Thr Pro Gln Gly His Glu Lys Leu 195 200 205

Leu Arg Thr Leu Phe Glu Asp Ala Gly Tyr Leu Lys Thr Pro Glu Glu 210 215 220

Asn Glu Pro Thr Gln Leu Glu Gly Gly Pro Asp Ser Leu Gly Phe Glu 225 230 235 240

Thr Leu Glu Asn Cys Arg Lys Ala His Lys Glu Leu Ser Lys Glu Ile 245 250 255

Lys Arg Leu Lys Gly Leu Leu Thr Gln His Gly Ile Pro Tyr Thr Arg 260 265 270

Pro Thr Glu Thr Ser Asn Leu Glu His Leu Gly His Glu Thr Pro Arg 275 280 285

Ala Lys Ser Pro Glu Gln Leu Arg Gly Asp Pro Gly Leu Arg Gly Ser 290 295 300

Leu 305

<210> 461

<211> 289

<212> PRT

<213> Homo sapiens

<400> 461

Met Phe Val Leu Leu Tyr Val Thr Ser Phe Ala Ile Cys Ala Ser Gly
1 5 10 15

Gln Pro Arg Gly Asn Gln Leu Lys Gly Glu Asn Tyr Ser Pro Arg Fr 20 25 30

Ile Cys Ser Ile Pro Gly Leu Pro Gly Pro Pro Gly Pro Pro Gly Ala 35 40 45

Asn Gly Ser Pro Gly Pro His Gly Arg Ile Gly Leu Pro Gly Arg Asp 50 55 60

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Gly Arg Asp Gly Arg Lys Gly Glu Lys Gly Glu Lys Gly Thr Ala Gly
Leu Arg Gly Lys Thr Gly Pro Leu Gly Leu Ala Gly Glu Lys Gly Asp
Gln Gly Glu Thr Gly Lys Lys Gly Pro Ile Gly Pro Glu Gly Glu Lys
                                105
Gly Glu Val Gly Pro Ile Gly Pro Pro Gly Pro Lys Gly Asp Arg Gly
Glu Gln Gly Asp Pro Gly Leu Pro Gly Val Cys Arg Cys Gly Ser Ile
                        135
Val Leu Lys Ser Ala Phe Ser Val Gly Ile Thr Thr Ser Tyr Pro Glu
                    150
                                       155
Glu Arg Leu Pro Ile Ile Phe Asn Lys Val Leu Phe Asn Glu Gly Glu
                                    170
                165
His Tyr Asn Pro Ala Thr Gly Lys Phe Ile Cys Ala Phe Pro Gly Ile
Tyr Tyr Phe Ser Tyr Asp Ile Thr Leu Ala Asn Lys His Leu Ala Ile
Gly Leu Val His Asn Gly Gln Tyr Arg Ile Lys Thr Phe Asp Ala Asn
Thr Gly Asn His Asp Val Ala Ser Gly Ser Thr Val Ile Tyr Leu Gln
                                        235
Pro Glu Asp Glu Val Trp Leu Glu Ile Phe Phe Thr Asp Gln Asn Gly
                                    250
Leu Phe Ser Asp Pro Gly Trp Ala Asp Ser Leu Phe Ser Gly Phe Leu
                                265
Leu Tyr Val Asp Thr Asp Tyr Leu Asp Ser Ile Ser Glu Asp Asp Glu
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Leu

<210> 462

<211> 142

<212> PRT

<213> Homo sapiens

<400> 462

Met Cys Ala Phe Pro Trp Leu Leu Leu Leu Leu Leu Gln Glu Gly
1 5 10 15

280

Ser Gln Arg Arg Leu Trp Arg Trp Cys Gly Ser Glu Glu Wl Val Ala

20 25 30

Val Leu Gln Glu Ser Ile Ser Leu Pro Leu Glu Ile Pro Pro Asp Glu 35 40 45

- Glu Val Glu Asn Ile Ile Trp Ser Ser His Lys Ser Leu Ala Thr Val
 50 60
- Val Pro Gly Lys Glu Gly His Pro Ala Thr Ile Met Val Thr Asn Pro 65 70 75 80
- His Tyr Gln Gly Gln Val Ser Phe Leu Asp Pro Ser Tyr Ser Leu His
 85 90 95
- Ile Ser Asn Leu Ser Trp Glu Asp Ser Gly Leu Leu Pro Ser Ser Ser 100 105 110
- Gln Pro Glu Asn Ile Pro Asp Leu Tyr His Ala Ala Val Gln Ser Met 115 120 125
- Cys Leu Pro Met Ala Val Arg Ala Pro Asp His Cys Glu Leu 130 135 140

<210> 463

<211> 75

<212> PRT

<213> Homo sapiens

<400> 463

Met Asn Leu His Tyr Leu Leu Ala ValIle Leu Ile Gly Ala Ala Gly 1 5 10 15

Val Phe Ala Phe Ile Asp Val Cys Leu Gln Arg Asn His Phe Arg Gly
20 25 30

Lys Lys Ala Lys Lys His Met Leu Val ProPro Pro Gly Lys Glu Lys $35 \hspace{1cm} 40 \hspace{1cm} . \hspace{1cm} 45$

Gly Pro Gln Gln Gly Lys Gly Pro Glu Pro Ala Lys Pro Pro Glu Pro 50 55 60

Gly Lys Pro Pro Gly Pro Ala Lys Gly Lys Lys
65 70 75

<210> 464

<211> 67

<212> PRT

<213> Homo sapiens

<400> 464

Met Lys Leu Leu Leu Leu Thr Leu Thr Val Leu Leu Leu Ser Gln 1 5 10

Leu Thr Pro Gly Gly Thr Qn Arg Cys Trp Asn Leu Tyr Gly Lys Cys 20 25 30

Arg Tyr Arg Cys Ser Lys Lys Glu Arg Val Tyr Val Tyr Cys Ile Asn 35 40 45

Asn Lys Met Cys Cys Val Lys Pro Lys Tyr Gln Pro Lys Glu Arg Trp 50 55

Trp Pro Phe 65

<210> 465

<211> 163

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (113)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 465

Met Ser Pro Arg Gly Thr Gly Cys Ser Ala Gly Leu Leu Met Thr Val 1 5 10 15

Gly Trp Leu Leu Ala Gly Leu Gln Ser Ala Arg Gly Thr Asn Val 20 25 30

Thr Ala Ala Val Gln Asp Ala Gly Leu Ala His Glu Gly Glu Gly Glu 35 40 45

Glu Glu Thr Glu Asn Asn Asp SerGlu Thr Ala Glu Asn Tyr Ala Pro
50 55 60

Pro Glu Thr Glu Asp Val Ser Asn Arg Asn Val Val Lys Glu Val Glu 65 70 75 80

Phe Gly Met Cys Thr Val Thr Cys Gly IleGly Val Arg Glu Val Ile 85 90 95

Leu Thr Asn Gly Cys Pro Gly Gly Glu Xaa Lys Cys Val Val Arg Val
100 105 110

Xaa Glu Cys Arg Gly Pro Thr Asp Cys Gly TrpGly Lys Pro Ile Ser 115 120 125

Glu Ser Leu Glu Ser Val Arg Leu Ala Cys Ile His Thr Ser Pro Leu 130 \$135\$

Ile Val Ser Ile Tyr Val Glu Leu Leu Arg Gln Thr Thr Ile His Tyr 145 150 155 160

Thr Cys Lys

<210> 466

<211> 312

<212> PRT

<213> Homo sapiens

<400> 466

Met Pro Pro Pro Arg Val Phe Lys Ser Phe Leu Ser Leu Leu Phe Gln
1 5 10 15

Gly Leu Ser Val Leu Ser Leu Ala Gly Asp Val Leu Val Ser Met
20 25 30

Tyr Arg Glu Val Cys Ser Ile Arg Phe Leu Phe Thr Ala Val Ser Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Leu Ser Leu Phe Leu Ser Ala Phe Trp Leu Gly Leu Leu Tyr Leu Val
50 60

Ser Pro Leu Glu Asn Glu Pro Lys Glu Met Leu Thr Leu Ser Glu Tyr 65 70 75 80

His Glu Arg Val Arg Ser Gln Gly Gln Gln Leu Gln Gln Leu Gln Ala 85 90 95

Glu Leu Asp Lys Leu His Lys Glu Val Ser Thr Val Arg Ala Ala Asn 100 105 110

Ser Glu Arg Val Ala Lys Leu Val Phe Gln Arg Leu Asn Glu Asp Phe 115 120 125

Val Arg Lys Pro Asp Tyr Ala Leu Ser Ser Val Gly Ala Ser Ile Asp 130 135 140

Leu Gln Lys Thr Ser His Asp Tyr Ala Asp Arg Asn Thr Ala Tyr Phe 145 150 155 160

Trp Asn Arg Phe Ser Phe Trp Asn Tyr Ala Arg Pro Pro Thr Val Ile 165 170 175

Leu Glu Pro His Val Phe Pro Gly Asn Cys Trp Ala Phe Glu Gly Asp 180 185 190

Gln Gly Gln Val Val Ile Gln Leu Pro Gly Arg Val Gln Leu Ser Asp 195 200 205

Ile Thr Leu Gln His Pro Pro Pro Ser Val Glu His Thr Gly Gly Ala 210 215 220

Asn Ser Ala Pro Arg Asp Phe Ala Val Phe Gly Leu Gln Val Tyr Asp

225 230 235 240

Glu Thr Glu Val Ser Leu Gly Lys Phe Thr Phe Asp Val Glu Lys Ser 245 250 255

Glu Ile Gln Thr Phe His Leu Gln Asn Asp Pro Pro Ala Ala Phe Pro 260 265 270

Lys Val Lys Ile Gln Ile Leu Ser AsnTrp Gly His Pro Arg Phe Thr 275 280 285

Cys Leu Tyr Arg Val Arg Ala His Gly Val Arg Thr Ser Glu Gly Ala 290 295 300

Glu Gly Ser Ala Gln Gly Pro His 305

<210>. 467

<211> 142

<212> PRT

<213> Homo sapiens

<400> 467

Met Pro Arg Cys Arg Trp Leu Ser Leu Ile Leu Leu Thr Ile Pro Leu 1 5 10 15

Ala Leu Val Ala Arg Lys Asp Pro Lys Lys Asn Glu Thr Gy Val Leu 20 25 30

Arg Lys Leu Lys Pro Val Asn Ala Ser Asn Ala Asn Val Lys Gln Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Trp Phe Ala Met Gln Glu Tyr Asn Lys Glu Ser Glu Asp Lys Tyr 50 60

Val Phe Leu Val Val Lys Thr Leu Gln Ala Gln Leu Gln Val Thr Asn 65 70 75 80

Leu Leu Glu Tyr Leu Ile Asp Val Glu Ile Ala Arg Ser Asp Cys Arg 85 90 95

Lys Pro Leu Ser Thr Asn Glu Ile Cys Ala Ile Gln Glu Asn Ser Lys 100 105 110

Leu Lys Arg Lys Leu Ser Cys Ser Phe Leu Val Gly Ala Leu Pro Trp 115 120 125

Asn Gly Glu Phe Thr Val Met Glu Lys Lys Cys Glu Asp Ala 130 135 140

<210> 468

<211> 58

<212> PRT

<213> Homo sapiens

<400> 468

Met Ser Leu Leu Phe Ile Val Ser Leu Leu Glu Leu Gly Pro Met Ala 1 5 10 15

Leu Leu Ala Glu Arg Lys Ala Met Lys Pro Ser Leu Gly Leu Arg Leu 20 25 30

Glu Glu Glu Glu Glu Thr Pro Phe GluGlu Gln Arg Ala Val Ser 35 40 45

Val Ile Pro Gly Val Pro Val Thr Tyr Leu 50 55

<210> 469

<211> 47

<212> PRT

<213> Homo sapiens

<400> 469

Met Tyr Leu Phe Leu Cys Cys Phe Ile Ser Glu His Cys Ala Gln 1 5 10 15

His Ser Phe Pro His Thr Cys Pro Asn Trp Lys Thr Arg Val Leu Ser 20 25 30

Phe Pro Leu His Pro Cys Pro His Leu le His Pro Asn Asn Thr 35 40 45

<210> 470

<211> 89

<212> PRT

<213> Homo sapiens

<400> 470

Met Val Ser Ala Ser Val Phe Val Gly Leu Val Ile Phe Tyr Ile Ala 1 10 15

Phe Cys Leu Leu Trp Pro Leu Val Val Lys Gly Cys Thr Met Ile Arg 20 25 30

Trp Lys Ile Asn Asn Leu Ile Ala Ser Glu Ser Tyr Tyr Thr Tyr Ala 35 40 45

Ser Ile Ser Gly Ile Ser Ser Met Pro Ser Leu Arg His Ser Arg Met 50 60

Gly Ser Met Phe Ser Ser Arg Met Thr Glu Asp Arg Ala Glu Pro Lys
65 70 75 80

Glu Ala Val Glu Arg Gln Leu Met Thr 85

<210> 471

<211> 39

<212> PRT

<213> Homo sapiens

<400> 471

Met Ala Phe Gly Gln Glu Val Thr His Leu Thr Lys Thr Ser Trp Leu 1 5 10 15

Ala Pro Leu Arg Phe Ile Lys Gly Leu Leu Gly Pro Trp Gly Trp Ile 20 25 30

Leu Leu Ile Leu Asp Leu Glu 35

<210> 472

<211> 181

<212> PRT

<213> Homo sapiens

<400> 472

Met Met Leu Met Pro Tyr Gly Ala Leu Ile Ile Gly Phe Val Cys Gly 1 5 10 15

Ile Ile Ser Thr Leu Gly Phe Val Tyr Leu Thr Pro Phe Leu Glu Ser 20 25 30

Arg Leu His Ile Gln Asp Thr Cys Gly Ile Asn Asn Leu His Gly Ile
35 40 45

Pro Gly Ile Ile Gly Gly Ile Val Gly Ala Val Thr Ala Ala Ser Ala 50 55 60

Ser Leu Glu Val Tyr Gly Lys Glu Gly Le Val His Ser Phe Asp Phe
65 70 75 80

Gln Gly Phe Asn Gly Asp Trp Thr Ala Arg Thr Gln Gly Lys Phe Gln 85 90 95

Ile Tyr Gly Leu Leu Val Thr Leu Ah Met Ala Leu Met Gly Gly Ile 100 105 110

Ile Val Gly Leu Ile Leu Arg Leu Pro Phe Trp Gly Gln Pro Ser Asp 115 120 125

Glu Asn Cys Phe Glu Asp Ala Val Tyr Trp Glu Me Pro Glu Gly Asn 130 135 140

Ser Thr Val Tyr Ile Pro Glu Asp Pro Thr Phe Lys Pro Ser Gly Pro 145 150 155 160

Ser Val Pro Ser Val Pro Met Val Ser Pro Leu Pro Met Aà Ser Ser

165 170 175

Val Pro Leu Val Pro 180

<210> 473

<211> 77

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (43)

<223> Xaa equals any of the naturally occurring bamino acids

<400> 473

Met Ala Ala Arg Ser Ala Leu Ala Leu Leu Leu Leu Pro Val Leu 1 5 10 15

Leu Leu Pro Val Gln Ser Arg Ser Glu Pro Glu Thr Thr Ala Pro Thr 20 25 30

Pro Thr Pro Ile Pro Gly Gly Asn Ser Ser Xaa Ser Arg Pro Leu Pro 35 40 45

Ser Ile Glu Leu His Ala Cys Gly Pro Tyr Pro Lys Pro Gly Leu Leu 50 55 60

Ile Leu Leu Ala Pro Leu Ala Leu Trp Pro Ile Leu Leu 65 70 75

<210> 474

<211> 246

<212> PRT

<213> Homo sapiens

<400> 474

Met Gly Pro Gln His Leu Arg Leu Val Gln Leu Phe Cys Leu Leu Gly 1 5 10 15

Ala Ile Ser Thr Leu Pro Arg Ala Gly Ala Leu Leu Cys Tyr Glu Ala 20 25 30

Thr Ala Ser Arg Phe Arg Ala Val Ala Phe His Asn Trp Lys Trp Leu $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Leu Met Arg Asn Met Val Cys Lys Leu Gln Glu Gly Cys Glu Glu Thr 50 55 60

Leu Val Phe Ile Glu Thr Gly Thr Ala Arg Gly Val Val Gly Phe Lys 65 70 75 80

Gly Cys Ser Ser Ser Ser Tyr Pro Ala Gln Ile Ser Tyr Leu Val

90 95

Ser Pro Pro Gly Val Ser Ile Ala Ser Tyr Ser Arg Val Cys Arg Ser 100 105 110

Tyr Leu Cys Asn Asn Leu Thr Asn Leu Glu Pro Phe Val Lys 115 120 125

Ala Ser Thr Pro Lys Ser Ile Thr Ser Ala Ser Cys Ser Cys Pro Thr 130 135 140

Cys Val Gly Glu His Met Lys Asp Cys Leu Pro Asn Phe Val Thr Thr 145 150 155 160

Asn Ser Cys Pro Leu Ala Ala Ser Thr Cys Tyr Ser Ser Thr Leu Lys 165 170 175

Phe Gln Ala Gly Phe Leu Asn Thr Thr Phe Leu Leu Met Gly Cys Ala 180 185 190

Arg Glu His Asn Gln Leu Leu Ala Asp Phe His His Ile Gly Ser Ile
195 200 205

Lys Val Thr Glu Val Leu Asn Ile Leu Glu Lys Ser Gln Ile Val Gly 210 215 220

Ala Ala Ser Ser Arg Gln Asp Pro Ala Trp Gly Val Val Leu Gly Leu 225 230 235 240

Leu Phe Ala Phe Arg Asp 245

<210> 475

<211> 84

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring Hamino acids

<400> 475

Met Trp Ser Ser Ser Trp Asp His Arg Ile Thr Thr Pro Arg LeuAla 1 5 10 15

Asn Phe Phe Phe Phe Phe Phe Phe Phe Phe Val Glu Met Gly Phe 20 25 30

Arg Tyr Val Gly Gln Ala Gly Leu Lys Leu Leu Ala Ser Ser Asn Leu $35 \hspace{1cm} 40 \hspace{1cm} 45$

Pro Ala Leu Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His His 50 60

Xaa Trp Leu Gly Gly Leu Ile Lys Thr Pro Ile Leu Ser Leu Thr Pro 65 70 75 80

Arg Val Ser Gly

<210> 476

<211> 110

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (93)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 476

Met Phe Leu Ala Ser Trp Leu Leu Phe Cys Ile Val Ala Pro Lys Asp 1 10 15

Asp Ala His Leu Ser Phe Ile Gln Cys Lys Asp Ile Trp Lys Asp Asn 20 25 30

Arg Lys Tyr Ser Cys Phe His Phe Lys Ser Asp Gln Leu Leu Glu Leu 35 40 45

Ala Ser Lys Ala Cys Thr Ser Phe Gln Ala Gln Ser Arg Ser Phe Thr 50 55 60

Ala Gly Ala Val Pro Ser Glu His Pro Glu LeuPro Cys Gly Ser Gln 65 70 75 80

Gln Leu Cys Cys Gly Cys Thr Ala Arg Leu Gly Gly Xaa Trp Ile Gly 85 90 95

Ala Ser Arg Cys Gly Ser Gly Ser Ala PheLeu Ala Ser Pro 100 105 110

<210> 477

<211> 190

<212> PRT

<213> Homo sapiens

<400> 477

Met Arg Ala Cys Pro Trp Ala Gln Val Pro Leu Tyr Leu Leu Leu Asp

Gly His Leu Ala Val Ser Gln Ala Gly Val Met Ala Gly Val Ser Gly 20 25 30

Gly Arg Gly Arg Arg Leu Arg Gly Pro Ile Thr Ser Arg Val Ile 35 40 45

Thr Ser Cys Gln Gln Pro Gly Val Gly Val Trp Val Ser Leu Arg Pro 50 55 60

Glu Leu Leu Asn Leu Glu Ser Leu Gly Val Ala Ala Lys Gly Val Tyr
65 70 75 80

Asp Lys His Val Ser Leu Asp Ile Ser Gly Glu Arg Ser Gly Ala Leu 85 90 95

Val Thr Phe Ser Lys Gly Cys Trp Ala Ser Glu Gln Ser Pro Pro Met 100 105 110

Ser Gln Pro Leu Gln Gly Pro Ser Leu Ser Leu His Pro Arg Pro Ser 115 120 125

Ala Ala Leu Val Met Ser Arg Arg Lys Val Leu Gly Cys Ala Gln Ser 130 135 140

Gln Glu Ser Lys Ile Cys Gln Ala Lys Ala Pro Gly Lys Ser Arg Arg 145 150 155 160

Ser Leu Gly Trp Pro Pro Gly Cys Gly Ala Ala Arg Ala Lys Thr Val 165 170 175

Asn Thr Ala Leu Gln Leu Ser Glu Pro Gln Phe Ser Asn Leu 180 185 190

<210> 478

<211> 61

<212> PRT

<213> Homo sapiens

<400> 478

Met Asn Ala Ser Leu Ile Ser Trp Val Leu Val Leu His Arg Ile Cys 1 5 10 15

Leu Gly Leu Ser Asp Ile Pro Lys Glu Asn Cys Ile Ile Thr Ile Ser 20 25 30

Gly Met Gln Leu Ser His His Gly Gln Ser Leu Gly Lys Trp Ala Glu 35 40 45

Lys Leu His Val Phe Tyr Ser Leu Phe Ser Phe Leu Leu 50 55 60

<210> 479

<211> 362

<212> PRT

<213> Homo sapiens

<400> 479

Met Arg Thr Leu Phe Asn Leu Leu Trp Leu Ala Leu Ala CysSer Pro 1 5 10 15

- Val His Thr Thr Leu Ser Lys Ser Asp Ala Lys Lys Ala Ala Ser Lys 20 25 30
- Thr Leu Leu Glu Lys Ser Gln Phe Ser Asp Lys Pro Val Gln AspArg 35 40 45
- Gly Leu Val Val Thr Asp Leu Lys Ala Glu Ser Val Val Leu Glu His
 50 60
- Arg Ser Tyr Cys Ser Ala Lys Ala Arg Asp Arg His Phe Ala Gly Asp 65 70 75 80
- Val Leu Gly Tyr Val Thr Pro Trp Asn Ser His Gly. Tyr Asp Val Thr 85 90 95
- Lys Val Phe Gly Ser Lys Phe Thr Gln Ile Ser Pro Val Trp Leu Gln 100 105 110
- Leu Lys Arg Arg Gly Arg Glu Met Phe Glu Val Thr Gly Leu His Asp 115 120 125
- Val Asp Gln Gly Trp Met Arg Ala Val Arg Lys His Ala Lys Gly Leu 130 135 140
- His Ile Val Pro Arg Leu Leu Phe Glu Asp Trp Thr Tyr Asp Asp Phe 145 150 155 160
- Arg Asn Val Leu Asp Ser Glu Asp Glu Ile Glu Glu Leu Ser Lys Thr 165 170 175
- Val Val Gln Val Ala Lys Asn Gln His Phe Asp Gly Phe Val Val Glu 180 185 190
- Val Trp Asn Gln Leu Leu Ser Gln Lys Arg Val Thr Asp Gln Leu Gly
 195 200 205
- Met Phe Thr His Lys Glu Phe Glu Gln Leu Ala Pro Val Leu Asp Gly 210 215 220
- Phe Ser Leu Met Thr Tyr Asp Tyr Ser Thr Ala His Gln Pro Gly Pro 225 230 235 240
- Asn Ala Pro Leu Ser Trp Val Arg Ala Cys Val Gln Val Leu Asp Pro 245 250 255
- Lys Ser Lys Trp Arg Ser Lys Ile Leu Leu Gly Leu Asn Phe Tyr Gly 260 265 270
- Met Asp Tyr Ala Thr Ser Lys Asp Ala Arg Glu Pro Val Val Gly Ala 275 280 285
- Arg Tyr Ile Gln Thr Leu Lys Asp His Arg Pro Arg Met Val Trp Asp 290 295 300
- Ser Gln Ala Ser Glu His Phe Phe Glu Tyr Lys Lys Ser Arg Ser Gly 305 310 315 320

Arg His Val Val Phe Tyr Pro Thr Leu Lys Ser Leu Gln Val Arg Leu 325 330 335

Glu Leu Ala Arg Glu Leu Gly Val Gly Val Ser Ile Trp Glu Leu Gly 340 345 350

Gln Gly Leu Asp Tyr Phe Tyr Asp Leu Leu 355 360

<210> 480

<211> 318

<212> PRT

<213> Homo sapiens

<400> 480

Met Ala Leu Met Leu Ser Leu Val Leu Ser Leu Leu Lys Leu Gly Ser 1 5 10 15

Gly Gln Trp Gln Val Phe Gly Pro Asp Lys Pro Val Gln Ala Leu Val 20 25 30

Gly Glu Asp Ala Ala Phe Ser Cys Phe Leu Ser Pro Lys Thr Asn Ala 35 40 45

Glu Ala Met Glu Val Arg Phe Phe Arg Gly Gln Phe Ser Ser Val Val 50 55 60

His Leu Tyr Arg Asp Gly Lys Asp Gln Pro Phe Met Gln Met Pro Gln 65 70 75 80

Tyr Gln Gly Arg Thr Lys Leu Val Lys Asp Ser Ile Ala Glu Gly Arg 85 90 95

Ile Ser Leu Arg Leu Glu Asn Ile Thr Val Leu Asp Ala Gly Leu Tyr $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$

Gly Cys Arg Ile Ser Ser Gln Ser Tyr Tyr Gln Lys Ala Ile Trp Glu 115 120 125

Leu Gln Val Ser Ala Leu Gly Ser Val Pro Leu Ile Ser Ile Ala Gly 130 135 140

Tyr Val Asp Arg Asp Ile Gln Leu Leu Cys Gln Ser Ser Gly Trp Phe 145 150 155 160

Pro Arg Pro Thr Ala Lys Trp LysGly Pro Gln Gly Gln Asp Leu Ser 165 170 175

Thr Asp Ser Arg Thr Asn Arg Asp Met His Gly Leu Phe Asp Val Glu 180 185 190

Ile Ser Leu Thr Val Gln Glu Asn AlaGly Ser Ile Ser Cys Ser Met 195 200 205

Arg His Ala His Leu Ser Arg Glu Val Glu Ser Arg Val Gln Ile Gly 210 215 220

Asp Trp Arg Arg Lys His Gly Gln Ala Gly Lys Arg Lys TyrSer Ser 225 230 235 240

Ser His Ile Tyr Asp Ser Phe Pro Ser Leu Ser Phe Met Asp Phe Tyr 245 250 255

Ile Leu Arg Pro Val Gly Pro Cys Arg Ala Lys Leu ValMet Gly Thr 260 265 270

Leu Lys Leu Gln Ile Leu Gly Glu Val His Phe Val Glu Lys Pro His 275 280 285

Ser Leu Leu Gln Ile Ser Gly Gly Ser Thr Thr Leu Lys Lys Gly Pro 290 295 300

Asn Pro Trp Ser Phe Pro Ser Pro Cys Ala Leu Phe Pro Thr 305 310 315

<210> 481

<211> 102

<212> PRT

<213> Homo sapiens

<400> 481

Met Leu Cys His Pro His Val His His Leu Val Cys Leu Leu Ala

Thr Leu Thr Phe Ser Leu Asn Ala Ser Cys Ala Glu Gln Thr Phe His 20 25 30

Ser Gln Gln Ser Asn Gly Glu Phe Net Ala Thr Leu Pro Ser Ile Ser

Lys Gln Phe Gly Val Ile Val Trp Lys Pro Gln Arg Lys Asp Val Ile 50 55 60

Arg Leu Pro Val Ala Leu Ser Phe Ser Ser Gly Ala Arg &u Ala Phe 65 70 75 80

Thr Cys Leu Arg Lys Ile Ser Gly Phe Arg Ala Leu Ile Trp Gly Glu 85 90 95

Asp Lys Gly Trp Asp Leu 100

<210> 482

<211> 201

<212> PRT

<213> Homo sapiens

<400> 482 Met Phe Phe Leu Gly Ala Val Leu Cys Leu Ser Phe Ser Trp Leu Phe His Thr Val Tyr Cys His Ser Glu Lys Val Ser Arg Thr Phe Ser Lsy Leu Asp Tyr Ser Gly Ile Ala Leu Leu Ile Met Gly Ser Phe Val Pro Trp Leu Tyr Tyr Ser Phe Tyr Cys Ser Pro Gln Pro Arg Leu Ile Tyr Leu Ser Ile Val Cys Val Leu Gly Ile Ser Ala Ile Ile Val Ala Gln Trp Asp Arg Phe Ala Thr Pro Lys His Arg Gln Thr Arg Ala Gly Val Phe Leu Gly Leu Gly Leu Ser Gly Val Val Pro Thr Met His Phe Thr Ile Ala Glu Gly Phe Val Lys Ala Thr Thr Val Gly Gln Met Gly Trp Phe Phe Leu Met Ala Val Met Tyr Ile Thr Gly Ala Gly Leu Tyr Ala 135 Ala Arg Ile Pro Glu Arg Phe Phe Pro Gly Lys Phe Asp Ile Trp Phe Gln Ser His Gln Ile Phe His Val Leu Val Val Ala Ala Ala Phe Val His Phe Tyr Gly Val Ser Asn Leu Gln Glu Phe Arg Tyr Gly Leu Glu 180 185 Gly Gly Cys Thr Asp Asp Thr Leu Leu 200 195

<210> 483

<211> 102

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (91)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring Lamino acids

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<220>
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<221> SITE

<222> (93)

<223> Xaa equals any of the naturally occurring Hamino acids

<400> 483

Met Gly Arg Arg Ser Gly Leu Leu Gly Leu Arg Pro Gly Arg SerArg
1 5 10 15

Trp Arg Trp Ser Gly Ser Val Trp Val Arg Ser Val Leu Leu Leu Leu 20 25 30

Gly Gly Leu Arg Ala Ser Ala Thr Ser Thr Pro Val Ser Leu Gly Ser 35 40 45

Ser Pro Pro Cys Arg His His Val Pro Ser Asp Thr Glu Val Ile Asn 50 60

Lys Val His Leu Lys Ala Asn His Val Val Lys Arg Asp Val Asp Glu 65 70 75 80

His Leu Arg Ile Lys Thr Val Tyr Asp Lys Xaa Xaa Xaa Ser Cys Ser 85 90 95

Leu Arg Lys Arg Ile Leu / 100

<210> 484

<211> 42

<212> PRT

<213> Homo sapiens

<400> 484

Met Met Leu Gly Leu Arg Gln Lys Leu Thr Thr Ser Leu Thr Ser Ala 1 5 15

Ala Ala Leu Thr Cys Val Leu Leu Ser Met Thr Gly Met Thr Thr 20 25 30

Ser Ser Ser Arg Ser Val Leu Trp Lys Thr 35 40

<210> 485

<211> 151

<212> PRT

<213> Homo sapiens

<400> 485

Met Arg Arg Leu Leu Val Thr Ser Leu Val Val Val Leu Leu Trp 1 5 10 15

Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val 20 25 30

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Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg
Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe Pro
                         55
Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly Gln
Gly Arg Gly Pro Ile Leu Pro Gly Thr Lys Ala Trp Met Glu Thr Glu
Asp Thr Leu Gly Arg Val Leu Ser Pro Glu Pro Asp His Asp Ser Leu
                                105
Tyr His Pro Pro Glu Glu Asp Gln Gly Glu Arg Pro Arg Leu
                            120
Trp Val Met Pro Asn His Gln Val Leu Leu Gly Pro Glu Glu Asp Gln
                        135
    130
Asp His Ile Tyr His Pro Gln
145
<210> 486
<211> 506
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (112)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (423)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
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Ala Ala Gly Arg Lys Glu Cys His Arg Glu Gln Leu Val Ala Ala Val

Met Gly Met Arg Arg His Ser Leu Met Leu Pro Trp Trp Leu Gly

<223> Xaa equals any of the naturally occurring Lamino acids

<222> (425)

<400> 486

20	25	30

Glu	Val	Thr	Glu	Gln	Glu	Thr	Lys	Val	Pro	Lys	Lys	Thr	Val	Ile	Ile
		35					40					45			

- Glu Glu Thr Ile Thr Thr Val Val Lys Ser Pro Arg Gly Gln Arg Arg 50 55 60
- Xaa Pro Ser Lys Ser Pro Ser Arg Ser Pro Ser Arg Cys Ser Ala Ser 65 70 75 80
- Pro Leu Arg Pro Gly Leu Leu Ala Pro Asp Leu Leu Tyr Leu Pro Gly 85 90 95
- Ala Gly Gln Pro Arg Pro Glu Ala Glu Pro Gly Gln Lys Pro Xaa 100 105 110
- Val Pro Thr Leu Tyr Val Thr Glu Ala Glu Ala His Ser Pro Ala Leu 115 120 125
- Pro Gly Leu Ser Gly Pro Gln Pro Lys Trp Val Glu Val Glu Glu Thr 130 135 140
- Ile Glu Val Arg Val Lys Lys Met Gly Pro Gln Gly Val Ser Pro Thr 145 150 155 160
- Thr Glu Val Pro Arg Ser Ser SerGly His Leu Phe Thr Leu Pro Gly 165 170 175
- Ala Thr Pro Gly Gly Asp Pro Asn Ser Asn Asn Ser Asn Lys Leu 180 185 190
- Leu Ala Gln Glu Ala Trp Ala Gln GlyThr Ala Met Val Gly Val Arg
 195 200 205
- Glu Pro Leu Val Phe Arg Val Asp Ala Arg Gly Ser Val Asp Trp Ala 210 215 220
- Ala Ser Gly Met Gly Ser Leu Glu Glu Glu Gly Thr Met GluGlu Ala 225 230 235 240
- Gly Glu Glu Gly Glu Asp Gly Asp Ala Phe Val Thr Glu Glu Ser 245 250 255
- Gln Asp Thr His Ser Leu Gly Asp Arg Asp Pro Lys IleLeu Thr His 260 265 270
- Asn Gly Arg Met Leu Thr Leu Ala Asp Leu Glu Asp Tyr Val Pro Gly 275 280 285
- Glu Gly Glu Thr Phe His Cys Gly Gly Pro Gly Pro Gly Ala Pro Asp 290 295 300
- Asp Pro Pro Cys Glu Val Ser Val Ile Gln Arg Glu Ile Gly Glu Pro 305 310 315 320
- Thr Val Gly Ser Leu Cys Cys Ser Ala Trp Gly Met His Trp Val Pro

325 330 335

Glu Ala Leu Ser Ala Ser Leu Gly Leu Ser Pro Val Gly Arg His His 340 345 350

- Arg Asp Pro Arg Ser Val Ala Leu Arg Ala Pro Pro Ser Ser Cys Gly 355 360 365
- Arg Pro Arg Leu Gly Leu Trp Ala Val Leu Pro Gly Arg Ser Leu Ser 370 380
- Ala Pro Ala Ser Gly Val Leu Arg Thr Val Ala Arg Ala Ala Ser Pro 385 390 395 400
- Gln Ser Phe Pro Pro Arg Pro Ser Thr Ser Gly Gln Trp Gly Arg Arg 405 410 415
- Ser Pro Phe Thr Ser Val Xaa Gly Xaa Gly Pro Ser Tyr Leu Thr Gln
 420 425 430
- Leu Gln Pro Gly Gly Leu Gly Gly Ala Cys Asn Val Gly Met Thr Gly 435 440 445
- Ser Lys Thr Ser Ala Leu Gly Cys Phe Leu Ser Ala Trp Gln Glu Pro 450 460
- Gln Asp Cys Gly Arg Arg Met Trp Pro Trp Ala Phe Val Leu Phe Pro 465 470 475 480
- His Gly Pro Gly Pro Ser Leu Leu Ala Pro Ala Thr Ala Ala Arg Pro 485 490 495
- Asp Met Ala Leu Pro Leu Leu Gln Ser Trp
 500 505

<210> 487

<211> 615

<212> PRT

<213> Homo sapiens

<400> 487

- Met Ile Leu Phe Leu Leu Ala Phe Leu Leu Phe Cys Gly Leu Leu Phe 1 5 10 15
- Tyr Ile Asn Leu Ala Asp His Trp Lys Ala Leu Ala Phe Arg Leu Glu 20 25 30
- Glu Glu Gln Lys Met Arg Pro Glu Ile Ala Gly Leu Lys Pro Ala Asn 35 40 45
- Pro Pro Val Leu Pro Ala Pro Gln Lys Ala Asp Thr Asp Pro Glu Asn 50 55 60
- Leu Pro Glu Ile Ser Ser Gln Lys Thr Gln Arg His Ile Gln Arg Gly 65 70 75 80

Pro Pro His Leu Gln Ile Arg Pro Pro Ser Gln Asp Leu Lys Asp Gly Thr Gln Glu Glu Ala Thr Lys Arg Gln Glu Ala Pro Val Asp Pro Arg 105 Pro Glu Gly Asp Pro Gln Arg Thr Val Ile Ser Trp Arg Gly Ala Val 120 Ile Glu Pro Glu Gln Gly Thr Glu Leu Pro Ser Arg Ala Glu Val 135 Pro Thr Lys Pro Pro Leu Pro Pro Ala Arg Thr Gln Gly Thr Pro Val 150 155 His Leu Asn Tyr Arg Gln Lys Gly Val Ile Asp Val Phe Leu His Ala Trp Lys Gly Tyr Arg Lys Phe Ala Trp Gly His Asp Glu Leu Lys Pro 185 Val Ser Arg Ser Phe Ser Glu Trp Phe Gly Leu Gly Leu Thr Leu Ile 200 Asp Ala Leu Asp Thr Met Trp Ile Leu Gly Leu Arg Lys Glu Phe Glu Glu Ala Arg Lys Trp Val Ser Lys Lys Leu His Phe Glu Lys Asp Val 235 Asp Val Asn Leu Phe Glu Ser Thr Ile Arg Ile Leu Gly Gly Leu Leu 245 Ser Ala Tyr His Leu Ser Gly Asp Ser Leu Phe Leu Arg Lys Ala Glu 265 Asp Phe Gly Asn Arg Leu Met Pro Ala Phe Arg Thr Pro Ser Lys Ile Pro Tyr Ser Asp Val Asn Ile Gly Thr Gly Val Ala His Pro Pro Arg Trp Thr Ser Asp Ser Thr Val Ala Glu Val Thr &r Ile Gln Leu Glu 315 310 Phe Arg Glu Leu Ser Arg Leu Thr Gly Asp Lys Lys Phe Gln Glu Ala Val Glu Lys Val Thr Gln His Ile His Gly bu Ser Gly Lys Lys Asp Gly Leu Val Pro Met Phe Ile Asn Thr His Ser Gly Leu Phe Thr His 360 Leu Gly Val Phe Thr Leu Gly Ala Arg Ala Asp Ser Tyr ∜r Glu Tyr 380 370 375

Leu Leu Lys Gln Trp Ile Gln Gly Gly Lys Gln Glu Thr Gln Leu Leu Glu Asp Tyr Val Glu Ala Ile Glu Gly Val Arg Thr His Leu Ag 405 410 His Ser Glu Pro Ser Lys Leu Thr Phe Val Gly Glu Leu Ala His Gly Arg Phe Ser Ala Lys Met Asp His Leu Val Cys Phe Leu Pro Gly Thr 440 Leu Ala Leu Gly Val Tyr His Gly Leu Pro Ala Ser His Met Glu Leu 455 Ala Gln Glu Leu Met Glu Thr Cys Tyr Gln Met Asn Arg Gln Met Glu 470 475 Thr Gly Leu Ser Pro Glu Ile Val His Phe Asn Leu Tyr Pro Gln Pro 490 485 Gly Arg Arg Asp Val Glu Val Lys Pro Ala Asp Arg His Asn Leu Leu 505 Arg Pro Glu Thr Val Glu Ser Leu Phe Tyr Leu Tyr Arg Val Thr Gly Asp Arg Lys Tyr Gln Asp Trp Gly Trp Glu Ile Leu Gln Ser Phe Ser 535 Arg Phe Thr Arg Val Pro Ser Gly Gly Tyr Ser Ser Ile Asn Asn Val Gln Asp Pro Gln Lys Pro Glu Pro Arg Asp Lys Met Glu Ser Phe Phe Leu Gly Glu Thr Leu Lys Tyr Leu Phe Leu Leu Phe Ser Asp Pro 585 Asn Leu Leu Ser Leu Asp Ala Tyr Val Phe Asn Thr Glu Ala His Pro 595 600 Leu Pro Ile Trp Thr Pro Ala

<210> 488

610

<211> 75

<212> PRT

<213> Homo sapiens

<400> 488

Met Gly Pro Leu Trp Gly Ala Pro Leu Arg Ala Trp Ala Ala Gly Ser 1 5 10 15 Val Gly Cys Pro Cys Cys Leu Ser Cys Ala Ser Pro Ser Ser Ile Ser 20 25 30

Ser Ala Gly Asp Pro Leu Ala Ser Cys Ser Thr Cys Gly Ser Thr Trp 35 40 §

Glu Ile Pro Leu Thr Trp Met Thr Met Asp His Leu Leu Val Arg Tyr 50 55 60

Tyr Leu Ser Gln Ala Arg Trp Cys Thr Thr Gly 65 70 75

<210> 489

<211> 187

<212> PRT

<213> Homo sapiens

<400> 489

Met Val Ala Ala Thr Val Ala Ala Trp Leu Leu Leu Trp Ala Ala 1 5 10 15

Ala Cys Ala Gln Gln Gln Asp Phe Tyr Asp Phe Lys Ala Val Asn 20 25 30

Ile Arg Gly Lys Leu Val Ser Leu Glu Lys Tyr Arg Gly Ser Val Ser 35 40 45

Leu Val Val Asn Val Ala Ser Glu Cys Gly Phe Thr Asp Gln His Tyr 50 55 60

Arg Ala Leu Gln Gln Leu Gln Arg Asp Leu Gly Pro His His Phe Asn 65 70 75 80

Val Leu Ala Phe Pro Cys Asn Gln Phe Gly Gln Gln Glu Pro Asp Ser 85 90 95

Asn Lys Glu Ile Glu Ser Phe Ala Arg Arg Thr Tyr Ser Val Ser Phe 100 105 110

Pro Met Phe Ser Lys Ile Ala Val Thr Gly Thr Gly Ala His Pro Ala 115 120 125

Phe Lys Tyr Leu Ala Gln Thr Ser Gly Lys Glu Pro Thr Trp Asn Phe 130 135 140

Trp Lys Tyr Leu Val Ala Pro Asp Gly Lys Val Val Gly Ala Trp Asp 145 150 155 160

Pro Thr Val Ser Val Glu Glu Val Arg Pro Gln Ile Thr Ala Leu Val 165 170 175

Arg Lys Leu Ile Leu Leu Lys Arg Glu Asp Leu 180 185 <210> 490

<211> 105

<212> PRT

<213> Homo sapiens

<400> 490

Met Ser Gly Leu Ala Ala Ala Ala His Val Phe Arg Val Cys Leu Phe 1 5 10 15

Pro Leu Ser Trp Gly Ser Ser Lys Thr Thr Phe Ile His Gly Leu Ser 20 25 30

Ser Tyr Ile Ala Thr Pro Val Leu Asn Ser Ile Phe Ser Ser Trp Lys 35 40 45

Ser Arg Arg Lys Asp Thr Trp Thr Cys Leu Leu His Arg Leu Ser Ala 50 60

Phe Pro Ile Ser Arg Arg Arg Asn Phe Ala Leu Phe Ser His Ser 65 70 75 80

Cys Val Cys Ile Arg Ser Ser Ser Asp Asp Val Gly Pro Thr Met Tyr 85 90 95

Ser Phe Ser Val Pro Cys Arg Val Lys 100 105

<210> 491

<211> 211

<212> PRT

<213> Homo sapiens

<400> 491

Met Tyr Ala Ser Val Leu Leu Thr Gly Leu Leu Ser Leu Gln Arg Cys
1 5 10 15

Leu Ala Val Thr Arg Pro Ser Trp Arg Leu Gly Cys Ala Ala Arg Pro 20 25 30

Gly Pro Pro Leu Leu Leu Ala Val Trp Leu Ala Ala Leu Leu Leu Ala 35 40 45

Val Pro Ala Ala Val Tyr Arg His Leu Trp Arg Asp Arg Val Cys Gln 50 60

Leu Cys His Pro Ser Pro Val His Ala Ala Ala His Leu Ser Leu Glu 65 70 75 80

Thr Leu Thr Ala Phe Val Leu Pro Phe Gly Leu Met Leu Gly Cys Tyr 85 90 95

Ser Val Thr Leu Ala Arg Leu Arg Gly Ala Arg Trp Gly Ser Gly Arg 100 105 110 His Gly Ala Arg Val Gly Arg Leu Val Ser Ala Ile Val Leu Pro Ser 115 120 125

Ala Cys Ser Gly Pro Pro Thr Thr Gln Ser Thr Phe Cys Arg Arg Ser 130 135 140

Gln Arg Trp Leu His Arg Lys Gly Pro Trp Arg Ser Trp Ala Glu Pro 145 150 155 160

Ala Arg Arg Glu Arg Glu Leu Arg Pro Trp Pro Ser Ser Val Leu 165 170 175

Ala Ser Thr Arg Cys Ser Thr Ser Ser Pro Leu Glu Ile Cys Cys Pro 180 185 190

Gly Gln Val Pro Val Ser Ser Arg Gly Ser Ser Lys Ala Leu Gly Arg 195 200 205

Pro Glu Gly 210

<210> 492

<211> 742

<212> PRT

<213> Homo sapiens

<400> 492

Met Ala Val Arg Glu Leu Cys Phe Pro Arg Gln Arg Gln Val Leu Phe 1 5 10 15

Leu Phe Leu Phe Trp Gly Val Ser Leu Ala Gly Ser Gly Phe Gly Arg
20 25 30

Tyr Ser Val Thr Glu Glu Thr Glu Lys Gly Ser Phe Val Val Asn Leu 35 40 45

Ala Lys Asp Leu Gly Leu Ala Glu Gly Glu Leu Ala Arg Gly Thr 50 55 60

Arg Val Val Ser Asp Asp Asn Lys Gln Tyr Leu Leu Asp Ser His
65 70 75 80

Thr Gly Asn Leu Leu Thr Asn Glu Lys Leu Asp Arg Glu Lys Leu Cys
85 90 95

Gly Pro Lys Glu Pro Cys Met Leu Tyr Phe Gln Ile Leu Met Asp Asp 100 105 110

Pro Phe Gln Ile Tyr Arg Ala Glu Leu Arg Val Arg Asp Ile Asn Asp 115 120 125

His Ala Pro Val Phe Gln Asp Lys Glu Thr Val Leu Lys Ile Ser Glu 130 135 140

Asn Thr Ala Glu Gly Thr Ala Phe Arg Leu Glu Arg Ala Gln Asp Pro

145					150					155					160
Asp	Gly	Gly	Leu	Asn 165	Gly	Ile	Gln	Asn	Tyr 170	Thr	Ile	Ser	Pro	Asn 175	
Phe	Phe	His	Ile 180	Asn	Ile	Ser	Gly	Gly 185	Asp	Glu	Gly	Met	11e	Tyr	Pro
Glu	Leu	Val 195	Leu	Asp	Lys	Ala	Leu 200	Asp	Arg	Glu	Glu	Gln 205	_	Glu	Leu
Ser	Leu 210	Thr	Leu	Thr	Ala	Leu 215	Asp	Gly	Gly	Ser	Pro 220		Arg	Ser	Gly
Thr 225	Ser	Thr	Val	Arg	Ile 230	Val	Val	Leu	Asp	Val 235		Asp	Asn	Ala	Pro 240
Gln	Phe	Ala	Gln	Ala 245	Leu	Tyr	Glu	Thr	Gln 250	Ala	Pro	Glu	Asn	Ser 255	
Ile	Gly	Phe	Leu 260	Ile	Val	Lys	Val	Trp 265	Ala	Glu	Asp	Val	Asp 270		Gly
Val	Asn	Ala 275	Glu	Val	Ser	Tyr	Ser 280	Phe	Phe	Asp	Ala	Ser 285		. Asn	Ile
Arg	Thr 290	Thr	Phe	Gln	Ile	Asn 295	Pro	Phe	Ser	Gly	Glu 300		Phe	Leu	Arg
Glu 305	Leu	Leu	Asp	Tyr	Glu 310	Leu	Val	Asn	Ser	Tyr 315	Lys	Ile	Asn	Ile	Gln 320
Ala	Met	Asp	Gly	Gly 325	Gly	Leu	Ser	Ala	Arg 330	Cys	Arg	Val	Leu	Val 335	
Val	Leu	Asp	Thr 340	Asn	Asp	Asn	Pro	Pro 345	Glu	Leu	Ile	Val	Ser 350		Phe
Ser	Asn	Ser 355	Val	Ala	Glu	Asn	Ser 360	Pro	Glu	Thr	Pro	Leu 365		Val	Phe
Lys	Ile 370	Asn	Asp	Arg	Asp	Ser 375	Gly	Glu	Asn	Gly	Lys 380	Met	Val	Cys	Tyr
Ile 385	Gln	Glu	Asn	Leu	Pro 390	Phe	Leu	Leu	Lys	Pro 395	Ser	Val	Glu	Asn	Phe 400
Tyr	Ile	Leu	Ile	Thr 405	Glu	Gly	Ala	Leu	Asp 410	Arg	Glu	Ile	Arg	Ala 415	
Tyr	Asn	Ile	Thr 420	Ile	Thr	Val	Thr	Asp 425	Leu	Gly	Thr	Pro	Arg 430		Lys
Thr	Glu	His 435	Asn	Ile	Thr	Val	Leu 440	Val	Ser	Asp	Val	Asn 445		Asn	Ala
Pro	Ala	Phe	Thr	Gln	Thr	Ser	Tyr	Thr	Leu	Phe	Val	Ara	Glu	Asn .	Asn

Ser 465	Pro	Ala	Leu	His	Ile 470	Gly	Ser	Val	Ser	Ala 475	Thr	Asp	Arg	Asp	Ser 480
Gly	Thr	Asn	Ala	Gln 485	Val	Thr	Tyr	Ser	Leu 490	Leu	Pro	Pro	Gln	Asp 495	Pro
His	Leu	Pro	Leu 500	Ala	Ser	Leu	Val	Ser 505	Ile	Asn	Ala	Asp	Asn 510	Gly	His
Leu	Phe	Ala 515	Leu	Arg	Ser	Leu	Asp 520	Tyr	Glu	Ala	Leu	Gln 525	Ala	Phe	Glu
Phe	Arg 530	Val	Gly	Ala	Thr	Asp 535	Arg	Gly	Ser	Pro	Ala 540	Leu	Asn	Ser	Glu
Ala 545	Leu	Gly	Ala	Arg	Ala 550	Gly	Ala	Gly	Arg	Gln 555	Arg	Gln	Leu	Ala	Leu 560
Arg	Ala	Val	Pro	Ala 565	Ala	Glu	Arg	Leu	Arg 570	Ala	Leu	His	Arg	Ala 575	Gly
Ala	Pro	Gly	Gly 580	Arg	Ala	Gly	Leu	Pro 585	Gly	Asp	Gln	Gly	Gly 590	Gly	Gly
Gly	Arg	Arg 595	Leu	Gly	Pro	Glu	Arg 600	Leu	Ala	Val	Val	Pro 605	Ala	Ala	Gln
Gly	His 610	Gly	Ala	Arg	Ala	Val 615	Arg	Cys	Val		Ala 620	Gln	Trp	Gly	Gly
Ala 625	His	Arg	Gln	Ala	Ala 630	Glu	Arg	Ala	Arg	Arg 635	Ser	Gln	Ala	Gln	Ala 640
Gly	Gly	Ala	Cys	Gln 645	Gly	Gln	Trp	Arg	Ala 650	Ser	Ser	Leu		His 655	Arg
His	Ala	Ala	Arg 660	Ala	Pro	Gly	Gly	Arg 665	Leu	Leu	Pro	Ala	Leu 670	Pro	Ala
Ser	Pro	Gly 675	Gly	Gly	Pro	Gly	Pro 680	Gly	Pro	Gly		Leu 685	Ala	His	Arg
Leu	Pro 690	Gly	Gly	Gly	Val	Gly 695	Leu	Gly	Val	Phe	Ala 700	Leu	Pro	Pro	Leu
Gly 705	Ala	Pro	Val	Arg	Gly 710	Gly	Ala	Ala	Val	Gln 715	Glu	Glu	Gln	Gly	Gly 702
Leu	Gly	Gly	Ser	Leu 725	Leu	Gly	Ala	Arg	Gly 730	Ser	Phe	Ser	Arg	Ala 735	Ser
Gly	Gly	Arg	Glu 740	Gly	Arg										

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<210> 493
<211> 45
<212> PRT
<213> Homo sapiens
<400> 493
Met Ser Met Lys Cys Tyr Leu Val Val Leu Ile Cys Ile Pro Leu Met
Ala Thr Asp Ala Glu Cys Leu Phe Leu Cys Leu Arg Ala Met Arg Ile
                                25
Ser Leu Glu Lys Gly Leu Ser Arg Ser Phe Ala Tyr Phe
<210> 494
<211> 46
<212> PRT
<213> Homo sapiens
<400> 494
Met Ile His Arg Ala Arg Ser Leu Ala Ala Leu Ser Ser Leu Met Leu
Tyr Thr Lys Leu Val Gln Pro Val Ala Cys Ile Ser His Val Ala Gln
                                 25
Asp Gly Phe Glu Tyr Gly Pro Thr Gln Ile His Lys Leu Ser
<210> 495
<211> 41
<212> PRT
<213> Homo sapiens
<400> 495
Met Ser Gly Ala Trp Gly Ser Gly Phe Ala Gly Ala Leu Trp Ser Met
Gly Leu Cys Ala Ser Ser Val Trp Gly Asn &r Trp Asp Ile Asp Phe
Cys Pro Arg Asp Ser His Gly Glu Trp
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<210> 496 <211> 310 <212> PRT <213> Homo sapiens

- <400> 496
- Met Ala Leu Arg Arg Pro Pro Arg Leu Arg Leu Cys Ala Arg Leu Pro 1 5 10 15
- Asp Phe Phe Leu Leu Leu Phe Arg Gly Cys Leu Ile Gly Ala Val 20 25 30
- Asn Leu Lys Ser Ser Asn Arg Thr P $\mathfrak p$ Val Val Gl $\mathfrak p$ Gl $\mathfrak p$ Gl $\mathfrak p$ Ser 35 40 45
- Val Glu Leu Ser Cys Ile Ile Thr Asp Ser Gln Thr Ser Asp Pro Arg
 50 55 60
- Ile Glu Trp Lys Lys Ile Gln Asp Glu Gln Thr Thr Tyr Va Phe Phe 65 70 75 80
- Asp Asn Lys Ile Gln Gly Asp Leu Ala Gly Arg Ala Glu Ile Leu Gly 85 90 95
- Lys Thr Ser Leu Lys Ile Trp Asn Val Thr Arg Arg Ap Ser Ala Leu $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$
- Tyr Arg Cys Glu Val Val Ala Arg Asn Asp Arg Lys Glu Ile Asp Glu 115 120 125
- Ile Val Ile Glu Leu Thr Val Gln Val Lys Pro Val Thr Pro Val Csy 130 140
- Arg Val Pro Lys Ala Val Pro Val Gly Lys Met Ala Thr Leu His Cys 145 150 155 160
- Gln Glu Ser Glu Gly His Pro Arg Pro His Tyr Ser Trp Tyr Arg Asn 165 170 175
- Asp Val Pro Leu Pro Thr Asp Ser Arg Ala Asn Pro Arg Phe Arg Asn 180 185 190
- Ser Ser Phe His Leu Asn Ser Glu Thr Gly Thr Leu Val Phe Thr Ala 195 200 205
- Val His Lys Asp Asp Ser Gly Gln Tyr Tyr Cys Ile Ala Ser Asn Asp 210 225 220
- Ala Gly Ser Ala Arg Cys Glu Glu Gln Glu Met Glu Val Tyr Asp Leu 225 230 235 240
- Asn Ile Gly Gly Ile Ile Gly Gly Val Leu Val Leu Ala Val Leu 245 250 255
- Ala Leu Ile Thr Leu Gly Ile Cys Cys Ala Tyr Arg Arg Gly Tyr Phe 260 265 270
- Ile Asn Asn Lys Gln Asp Gly Glu Ser Tyr Lys Asn Pro Gly Lys Pro
 275 280 285
- Asp Gly Val Asn Tyr Ile Arg Thr Asp Glu Glu Gly Asp Phe Arg His 290 295 300

<210> 497 <211> 525 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (210) <223> Xaa equals any of the naturally occurring Lamino acids <400> 497 Met Leu Ala Phe Pro Leu Leu Thr Gly Leu Ile Ser Phe Arg Glu Lys Arg Leu Gln Asp Val Gly Thr Pro Ala Ala Arg Ala Arg Ala Phe Phe Thr Ala Pro Val Val Phe His Leu Asn Ile Leu Ser Tyr Phe 40 Ala Phe Leu Cys Leu Phe Ala Tyr Val Leu Met Val Asp Phe Gln Pro 55 Val Pro Ser Trp Cys Glu Cys Ala Ile Tyr Leu Tp Leu Phe Ser Leu Val Cys Glu Glu Met Arg Gln Leu Phe Tyr Asp Pro Asp Glu Cys Gly Leu Met Lys Lys Ala Ala Leu Tyr Phe Ser Ap Phe Trp Asn Lys Leu 105 Asp Val Gly Ala Ile Leu Leu Phe Val Ala Gly Leu Thr Cys Arg Leu 120 Ile Pro Ala Thr Leu Tyr Pro Gly Arg Val Ile Leu Ser Le Asp Phe 135 140 Ile Leu Phe Cys Leu Arg Leu Met His Ile Phe Thr Ile Ser Lys Thr Leu Gly Pro Lys Ile Ile Ile Val Lys Arg Met Met Lys Asp Val Pta Phe Phe Leu Phe Leu Leu Ala Val Trp Val Val Ser Phe Gly Val Ala Lys Gln Ala Ile Leu Ile His Asn Glu Arg Arg Val Asp Trp Leu Phe

200

Arg Xaa Ala Val Tyr His Ser Tyr Leu Thr Ile Phe Gly Gln Ile Pro

Lys Ser Ser Phe Val Ile

305

	210					215					220				
Gly 225	Tyr	Ile	Asp	Gly	Val 230	Asn	Phe	Asn	Pro	Glu 235	His	Cys	Ser	Pro	Asn 240
Gly	Thr	Asp	Pro	Tyr 245	Lys	Pro	Lys	Cys	Pro 250	Glu	Ser	Asp	Ala	Thr 255	Gln
Gln	Arg	Pro	Ala 260	Phe	Pro	Glu	Trp	Leu 265	Thr	Val	Leu	Leu	Leu 270	Cys	Leu
Tyr	Leu	Leu 275	Phe	Thr	Asn	Ile	Leu 280	Leu	Leu	Asn	Leu	Leu 285	Ile	Ala	Met
Phe	Asn 290	Tyr	Thr	Phe	Gln	Gln 295	Val	Gln	Glu		Thr 300	Asp	Gln	Ile	Trp
Lys 305	Phe	Gln	Arg	His	Asp 310	Leu	Ile	Glu	Glu	Tyr 315	His	Gly	Arg	Pro	Ala 320
Ala	Pro	Pro	Pro	Phe 325	Ile	Leu	Leu	Ser	His 30	Leu	Gln	Leu	Phe	11e 335	Lys
Arg	Val	Val	Leu 340	Lys	Thr	Pro	Ala	Lys 345	Arg	His	Lys	Gln	Leu 350	Lys	Asn
Lys	Leu	Glu 355	Lys	Asn	Glu	Glu	Ala 360	Ala	Leu	Leu		Trp 365	Glu	Ile	Tyr
Leu	Lys 370	Glu	Asn	Tyr	Leu	Gln 375	Asn	Arg	Gln	Phe	Gln 380	Gln	Lys	Gln	Arg
Pro 385	Glu	Gln	Lys	Ile	Glu 390	Asp	Ile	Ser	Asn	Lys 395	Val	Asp	Ala	Met	Val @10
Asp	Leu	Leu	Asp	Leu 405	Asp	Pro	Leu	Lys	Arg 410	Ser	Gly	Ser	Met	Glu 415	Gln
Arg	Leu	Ala	Ser 420	Leu	Glu	Glu	Gln	Val 425	Ala	Gln	Thr	Ala	Arg 430	Ala	Leu
His	Trp	Ile 435	Val	Arg	Thr	Leu	Arg 440	Ala	Ser	Gly	Phe	Ser 445	Ser	Glu	Ala
Asp	Val 450	Pro	Thr	Leu	Ala	Ser 455	Gln	Lys	Ala	Ala	Glu 460	Glu	Pro	Asp	Ala
Glu 465	Pro	Gly	Gly	Arg	Lys 470	Lys	Thr	Glu	Glu	Pro 475	Gly	Asp	Ser	Tyr	His 480
Val	Asn	Ala	Arg	His 485	Leu	Leu	Tyr	Pro	Asn 490	Cys	Pro	Val	Thr	Arg 495	Phe
Pro	Val	Pro	Asn 500	Glu	Lys	Val	Pro	Trp 505	Glu	Thr	Glu	Phe	Leu 510	Ile	Tyr
Asp	Pro	Pro	Phe	Tyr	Thr	Ala	Glu	Arg	Lys	Asp	Ala	Ala			

515 520 525

<210> 498 <211> 390 <212> PRT <213> Homo sapiens <400> 498 Met Ile Ser Leu Pro Gly Pro Leu Val Thr Asn Leu Leu Arg Phe Leu Phe Leu Gly Leu Ser Ala Leu Ala Pro Pro Ser Arg Ala Gln Leu Gln Leu His Leu Pro Ala Asn Arg Leu Gln Ala Val Glu Gly Gly Val Val Leu Pro Ala Trp Tyr Thr Leu His Gly Glu Val Ser Ser Gln Pro Trp Glu Val Pro Phe Val Met Trp Phe Phe Lys Gln Lys Glu Lys Glu Asp Gln Val Leu Ser Tyr Ile Asn Gly Val Thr Thr Ser Lys Pro Gly Val Ser Leu Val Tyr Ser Met Pro Ser Arg Asn Leu Ser Leu Arg 105 Leu Glu Gly Leu Gln Glu Lys Asp Ser Gly Pro Tyr Ser Cys Ser Val Asn Val Gln Asp Lys Gln Gly Lys Ser Arg Gly His Ser Ile Lys Thr 135 Leu Glu Leu Asn Val Leu Val Pro Pro Ala Pro Pro Ser Cys Arg Leu 150 155 Gln Gly Val Pro His Val Gly Ala Asn Val Thr Leu Ser Cys Gln Ser 170 Pro Arg Ser Lys Pro Ala Val Gln Tyr Gln Trp Asp Arg Gln Leu Pro 185 Ser Phe Gln Thr Phe Phe Ala Pro Ala Leu Asp Val Ile Arg Gly Ser Leu Ser Leu Thr Asn Leu Ser Ser Ser Met Ala Gly Val Tyr Val Cys 215 Lys Ala His Asn Glu Val Gly Thr Ala Gln Cys Asn Val Thr Leu Glu

250

Val Ser Thr Gly Pro Gly Ala Ala Val Val Ala Gly Ala Val Val Gly

Thr Leu Val Gly Leu Gly Leu Leu Ala Gly Leu Val Leu Leu Tyr His 260 265 270

Arg Arg Gly Lys Ala Leu Glu Glu Pro Ala Asn Asp Ile Lys Glu Asp 275 280 285

Ala Ile Ala Pro Arg Thr Leu Pro Trp ProLys Ser Ser Asp Thr Ile 290 295 300

Ser Lys Asn Gly Thr Leu Ser Ser Val Thr Ser Ala Arg Ala Leu Arg 305 310 315

Pro Pro His Gly Pro Pro Arg Pro Gly Ala Leu ThrPro Thr Pro Ser 325 330 335

Leu Ser Ser Gln Ala Leu Pro Ser Pro Arg Leu Pro Thr Thr Asp Gly 340 345 350

Ala His Pro Gln Pro Ile Ser Pro Ile Pro Gly Gly ValSer Ser Ser 355 360 365

Gly Leu Ser Arg Met Gly Ala Val Pro Val Met Val Pro Ala Gln Ser 370 375 380

Gln Ala Gly Ser Leu Val 385 390

<210> 499

<211> 58

<212> PRT

<213> Homo sapiens

<400> 499

Met Pro Arg Asp Ala Ser Leu Ala Arg Arg Ala Cys Leu Ser Leu Leu 1 10 15

Leu His Leu Ser Trp Phe Pro Pro Cys Ser Ala Pro Gly Val Ile Phe 20 25 30

Ser His Ser Gly Tyr Gln Gly Phe Tyr His Ile Gly Phe Pro Lys Pro 35 40 45

His Ser Asn Ser Pro Leu Ser Gly Lys Pro 50 55

<210> 500

<211> 84

<212> PRT

<213> Homo sapiens

<400> 500

Met Lys Gly Trp Gly Trp Leu Ala Leu Leu Gly Ala Leu Leu Gly

1 5 10 15

Thr Ala Trp Ala Arg Arg Ser Gln Asp Leu His Cys Gly Ala Cys Arg 20 25 30

Ala Leu Val Asp Glu Leu Glu Trp Glu Ile Ala Gln Val Asp Pro Lys 35 40 45

Lys Thr Ile Gln Met Gly Ser Phe Arg Ile Asn Pro Asp Gly Ser Gln 50 55 60

Ser Val Val Glu Val Thr Val Thr Val Pro Pro Asn Lys Val Ala His 65 70 75 80

Ser Gly Phe Gly

<210> 501

<211> 72

<212> PRT

<213> Homo sapiens

<400> 501

Met Gly Ser Ala Ala Leu Glu Ile Leu Gly Leu Val Leu Cys Leu Val 1 5 10 15

Gly Trp Gly Gly Leu Ile Leu Ala Cys Gly Leu Pro Met Trp Gln Val 20 25 30

Thr Ala Phe Leu Asp His Asn Ile Val Thr Ala Gln Thr Thr Trp Lys
35 40 45

Gly Leu Trp Met Ser Cys Val Val Gln Ser Thr Gly Thr Cys Ser Ala 50 55 60

Lys Cys Thr Thr Arg Cys Trp Leu

<210> 502

<211> 178

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (157)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (170)

<223> Xaa equals any of the naturally occurring L-amino acids

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<220>
<221> SITE
<222> (171)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (177)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 502
Met Ala Ala Pro Arg Gly Arg Ala Ala Pro Trp Thr Thr Ala Leu Leu
Leu Leu Leu Ala Ser Gln Val Leu Ser Pro Gly Ser Cys Ala Asp Glu
Glu Glu Val Pro Glu Glu Trp Val Leu Leu His Val Val Gln Gly Gln
Ile Gly Ala Gly Asn Tyr Ser Tyr Leu Arg Leu Asn His Glu Gly Lys
Ile Val Leu Arg Met Arg Ser Leu Lys Gly Asp Aa Asp Leu Tyr Val
Ser Ala Ser Ser Leu His Pro Ser Phe Asp Asp Tyr Glu Leu Gln Ser
                 85
Ala Thr Cys Gly Pro Asp Ala Val Ser Ile Po Ala His Phe Arg Arg
Pro Val Gly Ile Gly Val Tyr Gly His Pro Ser His Leu Glu Ser Glu
Phe Glu Met Lys Val Tyr Tyr Asp Gly Thr Val Glu Gln Hs Pro Phe
                        135
Gly Glu Ala Ala Tyr Pro Ala Asp Gly Gln Met Pro Xaa Arg Ser Thr
                                         155
Leu Val Pro Arg Lys Thr Pro Arg Lys Xaa Xaa Asn Leu Phe Ser Ey
                                    170
                165
Xaa Tyr
<210> 503
<211> 8
<212> PRT
<213> Homo sapiens
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<400> 503

1

Thr Ala Ile Phe Phe Leu Leu Val

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<210> 504
<211> 130
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (64)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (65)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 504
Met Leu Met Pro Val His Phe Leu Leu Leu Leu Leu Leu Leu Gly
Gly Pro Arg Thr Gly Leu Pro His Lys Phe Tyr Lys Ala Lys Pro Ile
             20
                                                      30
Phe Ser Cys Leu Asn Thr Ala Leu Ser Glu Ala GluLys Gly Gln Trp
Glu Asp Ala Ser Leu Leu Ser Lys Arg Ser Phe His Tyr Leu Arg Xaa
Xaa Thr Pro Leu Arg Glu Arg Arg Arg Ala Lys Arg Lys Arg Leu
Ser Pro Ser Leu Gly Pro Gly Val Glu Pro Glu Ala Pro Gly Thr Asp
Thr Cys Pro Lys His Ser Pro Gly Glu Ser His Ala Arg Thr Arg Pro
                                105
Arg Val Pro Thr Ala Pro Ser Ser Pro Cys Pro Ser Thr Ser Pro Pro
                            120
                                                 125
        115
Thr Ser
    130
<210> 505
<211> 111
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (108)
<223> Xaa equals any of the naturally occurring Lamino acids
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<400> 505

Met Arg Arg Leu Leu Leu Ala Leu Pro Phe Ala Leu Leu Pro Leu Ala 1 5 10 15

Val Ala His Ala His Glu Asp His Asp His Glu His Gly Ser Leu Gly 20 25 30

Ala His Glu His Gly Val Gly Arg Leu Asn Ala Val Leu Asp Gly Gln 35 40 45

Ala Leu Glu Leu Glu Leu Asp Ser Pro Ala Met Asn Leu Val Gly Phe 50 55 60

Glu His Val Ala Thr Ser Ala Ala Asp Lys Ala Lys Val Ala Ala Val 65 70 75 80

Arg Lys Gln Leu Glu Asn Pro Ser GlyPro Val Gln Pro Ala Gln Ser

Arg Ser Cys Val Val Ser Asn Gln Gly Ile Asn Xaa Arg Cys Ser 100 105 110

<210> 506

<211> 105

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (70)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 506

Met Ile Ser Tyr Ile Val Leu Leu Ser Ile Leu Leu Trp Pro Leu Val 1 5 10 15

Val Tyr His Glu Leu Ile Gln Arg Met Tyr Thr Arg Leu Glu Pro Leu 20 25 30

Leu Met Gln Leu Asp Tyr Ser Met Lys Ala Glu Ala Asn Ala Leu His $35 \hspace{1cm} 40 \hspace{1cm} 45$

His Lys His Asp Lys Arg Lys Arg Gln Gly Lys Asn Ala Pro Pro Gly 50 55 60

Gly Asp Glu Pro Leu Xaa Glu Thr Glu Ser Glu Ser Glu Ala Glu Leu
65 70 75 80

Ala Gly Phe Ser Pro Val Val Asp Val Lys Lys Thr Ala Leu Ala Leu 85 90 95

Ala Ile Tyr Arg Leu Arg Ala Val Arg 100 105

```
<210> 507 <211> 413
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<212> PRT

<213> Homo sapiens

<400> 507

Met Arg Arg Gly Cys Ala Val Leu Gly Ala Leu Gly Leu Leu Ala Gly 1 5 10 15

Ala Gly Val Gly Ser Trp Leu Leu Val Leu Tyr Leu Cys Pro Ala Ala 20 25 30

Ser Gln Pro Ile Ser Gly Thr Leu Gln Asp Glu Glu Ile Thr Leu Ser 35 40 45

Cys Ser Glu Ala Ser Ala Glu Glu Ala Leu Leu Pro Ala Leu Pro Lys
50 60

Thr Val Ser Phe Arg Ile Asn Ser Glu Asp Phe Leu Leu Glu Ala Gln 65 70 75 80

Val Arg Asp Gln Pro Arg Trp Leu Leu Val Cys His Glu Gly Trp Ser 85 90 95

Pro Ala Leu Gly Leu Gln Ile Cys Trp Ser Leu Gly His Leu Arg Leu 100 105 110

Thr His His Lys Gly Val Asn Leu Thr Asp Ile Lys Leu Asn Ser Ser 115 120 125

Gln Glu Phe Ala Gln Leu Ser Pro Arg Lee Gly Gly Phe Leu Glu Glu 130 135 140

Ala Trp Gln Pro Arg Asn Asn Cys Thr Ser Gly Gln Val Val Ser Leu 145 150 155 160

Arg Cys Ser Glu Cys Gly Ala Arg Pro Leu Ala Sæ Arg Ile Val Gly 165 170 175

Gly Gln Ser Val Ala Pro Gly Arg Trp Pro Trp Gln Ala Ser Val Ala 180 $$185\$

Leu Gly Phe Arg His Thr Cys Gly Gly Ser Val Leu Aà Pro Arg Trp 195 200 205

Val Val Thr Ala Ala His Cys Met His Ser Phe Arg Leu Ala Arg Leu 210 215 220

Ser Ser Trp Arg Val His Ala Gly Leu Val Ser His Ser Ala Val Arg 225 230 235 240

Pro His Gln Gly Ala Leu Val Glu Arg Ile Ile Pro His Pro Leu Tyr \$245\$ \$250\$

Ser Ala Gln Asn His Asp Tyr Asp Val Ala Leu Leu Arg Leu Gln Thr

260 265 270

Ala Leu Asn Phe Ser Asp Thr Val Gly Ala Val Cys Leu Pro Ala Lys 275 280 285

- Glu Gln His Phe Pro Lys Gly Ser Arg Cys Trp Val Ser Gly Trp Gly 290 295 300
- His Thr His Pro Ser His Thr Tyr Ser Ser Asp Met Leu Gln Asp Thr 305 310 315 320
- Val Val Pro Leu Phe Ser Thr Gln Leu Cys Asn Ser Ser Cys Val Tyr 325 330 335
- Ser Gly Ala Leu Thr Pro Arg Met Leu Cys Ala Gly Tyr Leu Asp Gly 340 345 350
- Arg Ala Asp Ala Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Pro 355 360 365
- Asp Gly Asp Thr Trp Arg Leu Val Gly Val Val Ser Trp Gly Arg Gly 370 375 380
- Cys Ala Glu Pro Asn His Pro Gly Val Tyr Ala Lys Val Ala Glu Phe 385 390 395 400
- Leu Asp Trp Ile His Asp Thr Ala Gln Asp Ser Leu Leu 405 410
- <210> 508
- <211> 941
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> SITE
- <222> (807)
- <223> Xaa equals any of the naturally occurrig L-amino acids
- <220>
- <221> SITE
- <222> (809)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <220>
- <221> SITE
- <222> (815)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <220>
- <221> SITE
- <222> (819)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <400> 508

Met Val Phe Leu Pro Leu Lys Trp Ser Leu Ala Thr Met Ser Phe Leu Leu Ser Ser Leu Leu Ala Leu Leu Thr Val Ser Thr Pro Ser Trp Cys Gln Ser Thr Glu Ala Ser Pro Lys Arg Ser Asp Gly Thr Pro Phe Pro Trp Asn Lys Ile Arg Leu Pro Glu Tyr Val Ile Pro Val His Tyr Asp Leu Leu Ile His Ala Asn Leu Thr Thr Leu Thr Phe Trp Gly Thr Thr Lys Val Glu Ile Thr Ala Ser Gln Pro Thr Ser Thr Ile Ile Leu His Ser His His Leu Gln Ile Ser Arg Ala Thr Leu Arg Lys Gly Ala Gly 105 Glu Arg Leu Ser Glu Glu Pro Leu Gln Val Leu Glu His Pro Pro Gln 120 Glu Gln Ile Ala Leu Leu Ala Pro Glu Pro Leu Leu Val Gly Leu Pro 135 Tyr Thr Val Val Ile His Tyr Ala Gly Asn Leu Ser Glu Thr Phe His Gly Phe Tyr Lys Ser Thr Tyr Arg Thr Lys Glu Gly Glu Leu Arg Ile Leu Ala Ser Thr Gln Phe Glu Pro Thr Ala Ala Arg Met Ala Phe Pro 185 Cys Phe Asp Glu Pro Ala Phe Lys Ala Ser Phe Ser Ile Lys Ile Arg Arg Glu Pro Arg His Leu Ala Ile Ser Asn Met Pro Leu Val Lys Ser 215 220 Val Thr Val Ala Glu Gly Leu Ile Glu Asp His Phe Asp Val Thr Val 230 Lys Met Ser Thr Tyr Leu Val Ala Phe Ile Ile Ser Asp Phe Glu Ser 250 Val Ser Lys Ile Thr Lys Ser Gly Val Lys Val Ser Val Tyr Ala Val Pro Asp Lys Met Asn Gln Ala Asp Tyr Ala Leu Asp Ala Ala Val Thr 285 Leu Leu Glu Phe Tyr Glu Asp Tyr Phe Ser Ile Pro Tyr Pro Leu Pro 300 295

Lys Gln Asp Leu Ala Ala Ile Pro Asp Phe Gln Ser Gly Ala Met Glu Asn Trp Gly Leu Thr Thr Tyr Arg Glu Ser Ala Leu Leu Phe Asp Ala 325 Glu Lys Ser Ser Ala Ser Ser Lys Leu Gly Ile Thr Met Thr Val Ala 345 His Glu Leu Ala His Gln Trp Phe Gly Asn Leu Val Thr Met Glu Trp 360 Trp Asn Asp Leu Trp Leu Asn Glu Gly Phe Ala Lys Phe Met Glu Phe 375 Val Ser Val Ser Val Thr His Pro Glu LeuLys Val Gly Asp Tyr Phe 390 Phe Gly Lys Cys Phe Asp Ala Met Glu Val Asp Ala Leu Asn Ser Ser His Pro Val Ser Thr Pro Val Glu AsnPro Ala Gln Ile Arg Glu Met 425 Phe Asp Asp Val Ser Tyr Asp Lys Gly Ala Cys Ile Leu Asn Met Leu 435 440 Arg Glu Tyr Leu Ser Ala Asp Ala Phe Lys Ser GlyIle Val Gln Tyr 455 Leu Gln Lys His Ser Tyr Lys Asn Thr Lys Asn Glu Asp Leu Trp Asp Ser Met Ala Ser Ile Cys Pro Thr Asp Gly Val Lys Gly MetAsp Gly 490 Phe Cys Ser Arg Ser Gln His Ser Ser Ser Ser His Trp His Gln Glu Gly Val Asp Val Lys Thr Met Met Asn Thr Trp Thr Leu GlnArg 520 Gly Phe Pro Leu Ile Thr Ile Thr Val Arg Gly Arg Asn Val His Met 535 Lys Gln Glu His Tyr Met Lys Gly Ser Asp Gly Ala Pro Asp Thr Gly Tyr Leu Trp His Val Pro Leu Thr Phe Ile Thr Ser Lys Ser Asp Met Val His Arg Phe Leu Leu Lys Thr Lys Thr Asp Val Leu Ile Leu Pro Glu Glu Val Glu Trp Ile Lys Phe Asn Val Gly Met Asn Gly Tyr Tyr

600

Ile Val His Tyr Glu Asp Asp Gly Trp Asp Ser Leu Thr Gly Leu Leu Lys Gly Thr His Thr Ala Val Ser Ser Asn Asp Arg Ala Ser Leu Ile 635 Asn Asn Ala Phe Gln Leu Val Ser Ile Gly Lys Leu Ser Ile Glu Lys 650 Ala Leu Asp Leu Ser Leu Tyr Leu Lys His Glu Thr Glu Ile Met Pro Val Phe Gln Gly Leu Asn Glu Leu Ile Pro Met Tyr Lys Leu Met Glu 680 Lys Arg Asp Met Asn Glu Val Glu Thr Gln Phe Lys Ala Phe Leu Ile 695 Arg Leu Leu Arg Asp Leu Ile Asp Lys Gln Thr Trp Thr Asp Glu Gly Ser Val Ser Glu Arg Met Leu Arg Ser Glu Leu Leu Leu Ala Cys Val His Asn Tyr Gln Pro Cys Val Gln Arg Ala Glu Gly Tyr Phe Arg Lys Trp Lys Glu Ser Asn Gly Asn Leu Ser Leu Pro Val Asp Val Thr 760 Leu Ala Val Phe Ala Val Gly Ala Gln Ser Thr Glu Gly Trp Asp Phe 775 Leu Tyr Ser Lys Tyr Gln Phe Ser Leu Ser Ser Thr Glu Lys Ser Gln 795 Ile Glu Phe Ala Leu Cys Xaa Pro Xaa Asn Lys Glu Lys Leu Xaa Trp Leu Leu Xaa Glu Ser Phe Lys Gly Asp Lys Ile Lys Thr Gln Glu Phe 825 Pro Gln Ile Leu Thr Leu Ile Gly Arg Asn Pro Val Gly Tyr Pro Leu Ala Trp Gln Phe Leu Arg Lys Asn Trp Asn Lys Leu Val Gln Lys Phe 855 Glu Leu Gly Ser Ser Ser Ile Ala His Met Val Met Gly Thr Thr Asn Gln Phe Ser Thr Arg Thr Arg Leu Glu Glu Val Lys Gly Phe Phe Ser 890 Ser Leu Lys Glu Asn Gly Ser Gln Leu Arg Cys Val Gln Gln Thr Ile 900 905

Glu Thr Ile Glu Glu Asn Ile GlyTrp Met Asp Lys 915 920 925

Ile Arg Val Trp Leu Gln Ser Glu Lys Leu Glu Arg Met 930 935 940

<210> 509

<211> 264

<212> PRT

<213> Homo sapiens

<400> 509

Met Pro Phe Arg Leu Leu Ile Pro Leu Gly Leu Leu Cys Ala Leu Leu 1 5 10 15

Pro Gln His His Gly Ala Pro Gly Pro Asp Gly Ser Ala Pro Asp Pro 20 25 30

Ala His Tyr Arg Glu Arg Val Lys Ala Met Phe Tyr His Ala Tyr Asp $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Tyr Leu Glu Asn Ala Phe Pro Phe Asp Glu Leu Arg Pro Leu Thr 50 60

Cys Asp Gly His Asp Thr Trp Gly Ser Phe Ser Leu Thr Leu Ile Asp 65 70 75 80

Ala Leu Asp Thr Leu Leu Ile Leu Gly Asn Val Ser Glu Phe Gln Arg \$85\$ 90 95

Val Val Glu Val Leu Gln Asp Ser Val Asp Phe Asp Ile Asp Val Asn 100 105 110

Ala Ser Val Phe Glu Thr Asn Ile Arg Val Val Gly Gly Leu Leu Ser 115 120 125

Ala His Leu Leu Ser Lys Lys Ala Gly Val Glu Val Glu Ala Gly Trp 130 135 140

Pro Cys Ser Gly Pro Leu Leu Arg Met Ala Glu Glu Ala Ala Arg Lys 145 150 155 160

Leu Leu Pro Ala Phe Gln Thr Pro Thr Gly Met Pro Tyr Gly Thr Val 165 170 175

Asn Leu Leu His Gly Val Asn Pro Gly Glu Thr Pro Val Thr Cys Thr 180 185 190

Ala Gly Ile Gly Thr Phe Ile Val GluPhe Ala Thr Leu Ser Ser Leu 195 200 205

Thr Gly Asp Pro Val Phe Glu Asp Val Ala Arg Val Ala Leu Met Arg 210 215 220

Leu Trp Glu Ser Arg Ser Asp Ile Gly Leu Val Gly Asn HisIle Asp

Val Leu Thr Gly Lys Gly Trp Pro Arg Thr Gln Ala Ser Gly Leu Ala 245 250 255

Trp Thr Pro Thr Leu Ser Thr Trp 260

<210> 510

<211> 55

<212> PRT

<213> Homo sapiens

<400> 510

Met Ser Ser Asp Phe Leu Cys Phe Phe Phe Lys Leu Cys Asn Gln Met

1 10 15

Ile Leu Cys Phe Phe Phe Arg Gly Ala Glu Tyr Trp Phe Leu Læ Leu 20 25 30

Val Val Phe Ser Phe Leu Cys His Ser Cys Phe Phe Phe Val Phe Ser 35 40 45

Val Ser Asn Thr Ile Cys Ile 50 55

<210> 511

<211> 214

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (199)

<223> Xaa equals any of the naturally occurring Hamino acids

<220>

<221> SITE

<222> (206)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (214)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 511

Met Leu Gly Ala Arg Ala Trp Leu Gly Arg Val Leu Leu Pro Arg
1 5 10 15

Ala Gly Ala Gly Leu Ala Ala Ser Arg Arg Cys Pro Gly Val Trp Pro 20 25 30

Arg Thr Trp Pro His Arg Ser Pro Ser Arg Gly Ser Ser Ser Arg Asp
35 40 45

Lys Asp Arg Ser Ala Thr Val Ser Ser Ser ValPro Met Pro Ala Gly 50 55 60

Gly Lys Gly Ser His Pro Ser Ser Thr Pro Gln Arg Val Pro Asn Arg 65 70 75 80

Leu Ile His Glu Lys Ser Pro Tyr Leu Leu Gln His AlaTyr Asn Pro 85 90 95

Val Asp Trp Tyr Pro Trp Gly Gln Glu Ala Phe Asp Lys Ala Arg Lys
100 105 110

Glu Asn Lys Pro Ile Phe Leu Ser Val Gly Tyr Ser Thr CysHis Trp 115 120 125

Cys His Met Met Glu Glu Glu Ser Phe Gln Asn Glu Glu Ile Gly Arg 130 135 140

Leu Leu Ser Glu Asp Phe Val Ser Val Lys Val Asp Arg Glu Glu Arg 145 150 155 160

Pro Asp Val Asp Lys Val Tyr Met Thr Phe Val Gln Ala Thr Ser Ser 165 170 175

Gly Gly Grp Pro Met Asn Val Trp Leu Thr Pro Asn Leu Gln Pro 180 185 190

Phe Val Gly Gly Thr Ile Xaa Leu Leu Lys Asp Gly Leu Xaa Arg Val

Gly Ser Ala Gln Cys Xaa 210

<210> 512

<211> 43

<212> PRT

<213> Homo sapiens

<400> 512

Met Leu Gly Ala Arg Ala Trp Leu Gly Arg Val Leu Leu Pro Arg 1 5 10 15

Ala Gly Ala Gly Leu Ala Ala Ser Arg Arg Ser Ala Cys Ser Pro Thr 20 25 30

Ser Arg Leu Asn Ser Leu Arg Ser Leu Ile Pro 35 40

<210> 513

<211> 333

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<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (100)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (111)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (227)
<223> Xaa equals any of the naturally occurring Hamino acids
<400> 513
Met Leu Thr Gly Ile Ala Val Gly Ala Leu Leu Ala LeuAla Leu Val
Gly Val Leu Ile Leu Phe Met Phe Arg Arg Leu Arg Gln Phe Arg Gln
Ala Gln Pro Thr Pro Gln Tyr Arg Phe Arg Lys Arg Asp LysVal Met
Phe Tyr Gly Arg Lys Ile Met Arg Lys Val Thr Thr Leu Pro Asn Thr
Leu Val Glu Asn Thr Ala Leu Pro Arg Gln Arg Ala Arg Lys Arg Thr
Lys Val Leu Ser Leu Ala Lys Arg Ile Leu Arg Phe Lys Lys Glu Tyr
Pro Gly Leu Xaa Pro Lys Asp Pro Arg Pro Ser Leu Leu Glu Xaa Asp
                                105
            100
Phe Thr Glu Phe Asp Val Lys Asn Ser His Leu Pro Ser Glu Val Leu
        115
Tyr Met Leu Lys Asn Val Arg Val Leu Gly His Phe Glu Lys Pro Leu
Phe Leu Glu Leu Cys Lys His Ile Val Phe Val Gln Leu Gln Glu Gly
Glu His Val Phe Gln Pro Arg Glu Pro Asp Pro Ser Ile Cys Val Val
                                    170
Gln Asp Gly Arg Leu Glu Val Cys Ile Gln Asp Thr Asp Gly Thr Glu
            180
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205

Val Val Lys Glu Val Leu Ala Gly Asp Ser Val His Ser Leu Leu 200

- Ser Ile Leu Asp Ile Ile Thr Gly His Ala Ala Pro Tyr Lys Thr Val 210 215 220
- Ser Val Xaa Ala Ala Ile Pro Ser Thr Ile Leu Arg Leu Pro Ala Ala 225 230 235 240
- Ala Phe His Gly Val Phe Glu Lys Tyr Pro Glu Thr Leu Val Arg Val 245 250 255
- Val Gln Ile Ile Met Val Arg Leu Gln Arg Val Thr Phe Leu Ala Leu 260 265 270
- His Asn Tyr Leu Gly Leu Thr Thr Glu Leu Phe Asn Ala Glu Ser Gln 275 280 285
- Ala Ile Pro Leu Val Ser Val Ala Ser Val Ala Ala Gly Lys Ala Lys 290 295 300
- Lys Gln Val Phe Tyr Gly Glu Glu Glu Arg Leu Lys Lys Pro Pro Arg 305 310 315 320
- Leu Gln Glu Ser Cys Asp Ser Asp His Gly Gly Arg 325 330
- <210> 514
- <211> 415
- <212> PRT
- <213> Homo sapiens
- <400> 514
- Val Gly Leu Val Ser Met Leu Gly Ile Pro Ile Pro Gly Ala Glu Gly
 1 5 10 15
- Ala Pro Val Leu Asn Ser Leu Val Phe Leu Ser Gly Gln Ser Thr Pro 20 25 30
- Thr Gln Lys Gly Val Gly Ile Ala Gly Ala Val Cys Val Ser Ser Lys 35 40 45
- Leu Arg Pro Arg Gly Gln Cys Arg Leu Glu Phe Ser Leu Ala Trp Asp 50 55 60
- Met Pro Arg Ile Met Phe Gly Ala Lys Gly Gln Val His Tyr Arg Arg 65 70 75 80
- Tyr Thr Arg Phe Phe Gly Gln Asp Gly Asp Ala Ala Pro Ala Leu Ser 85 90 95
- His Tyr Ala Leu Cys Arg Tyr Ala Glu Trp Glu Glu Arg Ile Ser Ala 100 105 110
- Trp Gln Ser Pro Val Leu Asp Asp Arg Ser Leu Pro Ala Trp Tyr Lys
 115 120 125

Ser	Ala 130	Leu	Phe	Asn	Glu	Leu 135	Tyr	Phe	Leu	Ala	Asp 140	Gly	Gly	Thr	Val
Trp 145	Leu	Glu	Val	Leu	Glu 150	Asp	Ser	Leu	Pro	Glu 155	Glu	Leu	Gly	Arg	Asn 160
Met	Cys	His	Leu	Arg 165	Pro	Thr	Leu	Arg	Asp 170	Tyr	Gly	Arg	Phe	Gly 175	Tyr
Leu	Glu	Gly	Gln 180	Glu	Tyr	Arg	Met	Tyr 185	Asn	Thr	Tyr	Asp	Val 190	His	Phe
Tyr	Ala	Ser 195	Phe	Ala	Leu	Ile	Met 200	Leu	Trp	Pro	Lys	Leu 205	Glu	Leu	Ser
Leu	Gln 210	Tyr	Asp	Met	Ala	Leu 215	Ala	Thr	Leu	Arg	Glu 220	Asp	Leu	Thr	Arg
Arg 225	Arg	Tyr	Leu	Met	Ser 230	Gly	Wal	Met	Ala	Pro 235	Val	Lys	Arg	Arg	Asn 240
Val	Ile	Pro	His	Asp 245	Ile	Gly	Asp	Pro	Asp 250	Asp	Glu	Pro	Trp	Leu 255	
Val	Asn	Ala	Tyr 260	Leu	Ile	His	Asp	Thr 265	Ala	Asp	Trp	Lys	Asp 270	Leu	Asn
Leu	Lys	Phe 275	Val	Leu	Gln	Val	Tyr 280	Arg	Asp	Tyr	Tyr	Leu 285	Thr	Gly	Asp
Gln	Asn 290	Phe	Leu	Lys	Asp	Met 295	Trp	Pro	Æl	Cys	Leu 300		Val	Met	Glu
Ser 305	Glu	Met	Lys	Phe	Asp 310	Lys	Asp	His	Asp	Gly 315		Ile	Glu	Asn	Gly 320
Gly	Tyr	Ala	Asp	Gln 325	Thr	Tyr	Asp	Gly	Trp 330		ħr	Thr	Gly	Pro 335	
Ala	Tyr	Cys	Gly 340	Gly	Leu	Trp	Leu	Ala 345		Val	Ala	Val	Met 350	Val	Gln
Met	Ala	Ala 355	Leu	Cys	Gly	Ala	Gln 360	_	Ile	Gln	Asp	⊈ s 365	Phe	Ser	Ser
Ile	Leu 370	Ser	Arg	Gly	Gln	Glu 375	Ala	Tyr	Glu	Arg	Leu 380		Trp	Asn	Gly
Arg 385	Tyr	Tyr	Asn	Tyr	Asp 390	Ser	Ser	Ser	Arg	Pro 395		Ser	Arg	Ser	Val 400
Met	Ser	Asp	Gln	Cys 405	Ala	Gly	Gln	Trp	Phe 410		Lys	Ala	Cys	Gly 415	

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<211> 112
<212> PRT
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<213> Homo sapiens

<400> 515

Met Ala Arg Gly Ser Leu Arg Arg Leu Leu Arg Leu Leu Val Leu Gly
1 5 10 15

Leu Trp Leu Ala Leu Leu Arg Ser Val Ala Gly Glu Gln Ala Pro Gly 20 25 30

Thr Ala Pro Cys Ser Arg Gly Ser Ser Trp Ser Ala Asp Leu Asp Lys
35 40 45

Cys Met Asp Cys Ser Thr Ser Cys Pro Leu Pro Ala Ala Leu Ala His 50 60

Pro Trp Gly Arg Ser Glu Pro Asp Leu Arg Ala Gly Ala Ala Phe Trp 65 70 75 80

Leu Phe Gly Leu Glu Thr Met Pro Gln Arg Glu Lys Phe Thr Thr Pro 85 90 95

Ile Glu Glu Thr Gly Gly Glu Gly Cys Pro Ala Val Ala Leu Ile Gln 100 105 110

<210> 516

<211> 155

<212> PRT

<213> Homo sapiens

<400> 516

Met Ala Arg Gly Ser Leu Arg Arg Leu Leu Arg Leu Leu Val Leu Gly
1 5 10 15

Leu Trp Leu Ala Leu Leu Arg Ser Val Ala Gly Glu Gln Ala Pro Gly 20 25 30

Thr Ala Pro Cys Ser Arg Gly Ser Ser Trp Ser Ala Asp Leu Asp Lys
35 40 45

Cys Met Asp Cys Ser Thr Ser Cys Pro Leu Pro Ala Ala Leu Ala His 50 55 60

Pro Trp Gly Arg Ser Glu Pro Asp Leu Arg Ala Gly Ala Ala Phe Trp 65 70 75 80

Leu Phe Gly Leu Glu Thr Met Pro Gln Glu Arg Glu Val His His Pro 85 90 95

His Arg Gly Asp Arg Arg Gly Leu Pro Ser Cys Gly Ala Asp Pro 100 105 110 Val Thr Met Cys Pro Leu Pro Ala Gly Ala Arg Pro Leu Ile Ile His 115 120 125

Ser Ser Ile Leu Glu Pro Val Ser Ala Ser Gln Thr Arg Arg Glu Pro 130 135 140

Ser Ser Ser Asn His Lys Gly Gly Gly Arg 145 150 155

<210> 517

<211> 153

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (98)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 517

Met Ala Ala Thr Gln Thr Gly Thr Cys Leu Met Val Ala Ala Leu Cys

1 10 15

Phe Val Leu Val Leu Gly Ser Leu Val Pro Cys Leu Pro Glu Phe Ser 20 25 30

Ser Gly Ser Gln Thr Val Lys Glu Asp Pro Leu Ala Ala Asp Gly Val 35 40 45

Tyr Thr Ala Ser Gln Met Pro Ser Arg Ser Leu Leu Phe Tyr Asp Asp 50 55 60

Gly Ala Gly Leu Trp Glu Asp Gly Arg Ser Thr Leu Leu Pro Met Glu 65 70 75 80

Pro Pro Asp Gly Trp Glu Ile Asn Pro Gly Gly Pro Ala Glu Gln Arg 85 90 95

Pro Xaa Asp His Leu Gln His Asp His Leu Asp Ser Thr His Glu Thr 100 105 110

Thr Lys Tyr Leu Ser Glu Ala Trp Pro Lys Asp Gly Gly Asn Gly Thr 115 120 125

Ser Pro Asp Phe Ser His Ser Lys Glu Trp Phe His Asp Arg Asp Leu 130 135 140

Gly Pro Asn Thr Thr Ile Lys Leu Ser 145 150

<210> 518

<211> 47

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<212> PRT
<213> Homo sapiens
<400> 518
Met Ser Leu Leu Pro Pro Leu Ala Leu Leu Leu Leu Ala Ala
Leu Val Ala Pro Ala Thr Ala Ala Thr Ala Tyr Arg Pro Asp Trp Asn
Arg Leu Ser Gly Leu Thr Arg Ala Arg Val Glu Thr Cys Gly Gly
<210> 519
<211> 17
<212> PRT
<213> Homo sapiens
<400> 519
Met Ser Lys Ala Arg Phe Pro Phe Leu Leu Ser Leu Arg Trp Phe Ser
Ala
<210> 520
<211> 181
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (110)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 520
Met Ala Asp Pro His Val Ser Phe Leu Ser Phe Arg Gi Leu Phe Ser
                                     10
                                                         15
Trp Ala Ala Val Ile Leu Leu Arg Gly Ile Leu Gly Thr Val Ala Pro
Pro Pro Cys Pro Cys Val Leu Asp Leu Ala Val Tyr Pro Le His Leu
Pro Val Glu Ala Pro Cys Leu Glu Val Val Phe Lys Gln Lys Asn Gly
Lys Asp Asn Cys Leu Val Phe Tyr Pro Asp Pro Ile Pro Leu Arg Gly
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Ser Leu Leu Gly Pro Phe Ile Lys Asn Gln Cys His Ser Ser Val Ile

Pro Leu Ser Asp Ser Ala Thr Ser Lys Ala Arg Ala Leu Xaa Leu Pro
100 105 110

Gly Arg Glu Thr Val Leu Ser Val Leu Pro Val Phe Ser Ser Pro Thr 115 120 125

Leu Pro Arg Thr His Ala Leu Gly Asp Ser Leu Gly Val Pro Gly Leu 130 135 140

Leu Val Cys Ser Glu Thr Ser Thr Leu Asn Asp His Trp Cys Cys Arg 145 150 155 160

Arg Ala Gly Ala Tyr Ile Pro Ile Asn Arg Arg Phe Ser His Leu Met 165 170 175

Pro Leu Ala Phe Ser 180

<210> 521

<211> 87

<212> PRT

<213> Homo sapiens

<400> 521

Met Ala Asp Pro His Val Ser Phe Leu Ser Phe Arg Gln Leu Phe Ser 1 10 15

Trp Ala Ala Val Ile Leu Leu Arg Gly Ile Leu Gly Thr Val Ala Pro $20 \hspace{1cm} 25 \hspace{1cm} 30$

Pro Pro Cys Pro Cys Val Leu Asp Leu Ala Val Tyr Pro Leu His Leu 35 40 45

Pro Val Glu Ala Pro Cys Leu Glu Val Val Phe Lys Gln Lys Asn Gly 50 55 60

Lys Asp Asn Cys Leu Val Phe Tyr Pro Asp Pro Ile Pro Leu Arg Gly 65 70 75 80

Ser Leu Leu Gly Pro Phe Ile 85

<210> 522

<211> 87

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring Lamino acids

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<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 522
Met Ala Asp Pro His Val Ser Phe Leu Ser Phe Arg Gln Leu Phe Ser
Trp Ala Ala Val Ile Leu Leu Arg Gly Ile Leu Gly Thr Val Ala Pro
Pro Pro Cys Pro Cys Val Leu Asp Leu Ala Val Tyr Pro Leu His Leu
Pro Val Glu Ala Pro Cys Xaa Glu Val Val Phe Lys Gln Lys Asn Gly
Lys Xaa Asn Cys Leu Val Phe Tyr Pro Asp Pro Ile Pro Leu Arg Gly
Ser Leu Leu Gly Pro Phe Ile
<210> 523
<211> 66
<212> PRT
<213> Homo sapiens
<400> 523
Met Leu Ile Tyr Trp Leu Gln Ser Ser Phe Ile Leu Ser Ala Phe Val
Leu Ile Asn Ser Pro Val Thr Thr Gly Ile Gln Lys Ser Cys Cys Lys
Phe Phe Pro Val Ser Ile Asn Leu Cys Phe Ala Ser Leu His Arg Met
                              40
Lys Val Val Thr Leu Val Ala Leu Gln Trp Leu Asn Ile Ala Leu Arg
Ser Ser
 65
<210> 524
<211> 170
<212> PRT
<213> Homo sapiens
<400> 524
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10

Met Ala Thr Ala Met Asp Trp Leu Pro Trp Ser Leu Leu Phe Ser

Leu Met Cys Glu Thr Ser Ala Phe Tyr Val Pro Gly Val Ala Pro Ile 20 25 30

Asn Phe His Gln Asn Asp Pro Val Glu Ile Lys Ala Val Lys Leu Thr 35 40 45

Ser Ser Arg Thr Gln Leu Pro Tyr Glu Tyr Tyr &r Leu Pro Phe Cys 50 60

Gln Pro Ser Lys Ile Thr Tyr Lys Ala Glu Asn Leu Gly Glu Val Leu 65 70 75 80

Arg Gly Asp Arg Ile Val Asn Thr Pro Phe Gln Val Leu lphat Asn Ser 85 90 95

Glu Lys Lys Cys Glu Val Leu Cys Ser Gln Ser Asn Lys Pro Val Thr 100 105 110

Leu Thr Val Glu Gln Ser Arg Leu Val Ala Glu Arg Ile Thr $\mathfrak E$ u Asp 115 120 125

Tyr Tyr Val His Leu Ile Ala Asp Asn Leu Pro Val Ala Thr Arg Leu 130 135 140

Glu Leu Tyr Ser Asn Arg Asp Ser Asp Asp Lys Lys Lys Glu Ser Asp 145 150 155 160

Ile Lys Trp Ala Ser Arg Trp Asp Thr Tyr 165 170

<210> 525

<211> 151

<212> PRT

<213> Homo sapiens

<400> 525

His Ala Ser Gly Ala Arg Arg Arg Leu Gln Ala P $\mathfrak p$ Pro Val Pro His 1 5 10 15

Asp Pro Gln Leu Pro Ala Gly Leu Arg His Ser Ala Val Leu Tyr Asp 20 · 25 30

Pro His Arg His Leu Cys Ser His Ala Trp Asp Ala Và Ala Leu Gln \$35\$

Pro Gly Ser Ser His Asp His Ser Leu Leu Pro Leu His Val His Gly 50 55 60

Gly Val Trp Arg Ile Phe Cys Trp Pro Ser Val Pro His Phe Lys Arg
65 70 75 80

Pro Ser Val Glu Glu Arg Ser Leu Leu Tyr Gly Asn Ser Val Pro Trp 85 90 95 Cys Gly Phe Trp His Leu Leu Arg Ile Glu Leu Leu His Leu Gly Lys 100 105 110

Ala Leu Ile Arg Ser Gly Ala Leu Ser His His Gly Gly Ser Ala Val 115 120 125

His Val Val Arg Asp Leu Pro Ala Pro Arg Leu Leu Gly Leu Leu Leu 130 135 140

Arg Leu Pro Lys Ala Ala Ile 145 150

<210> 526

<211> 120

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 526

Met Gly Thr Val Ser Ser Arg Arg Ser Trp Trp Pro Leu Pro Leu Leu $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Leu Leu Leu Leu Leu Leu Gly Pro Ala Gly Ala Arg Ala Gln Glu
20 25 30

Asp Glu Asp Gly Asp Tyr Glu Glu Leu Val Leu Ala Leu Arg Ser Glu 35 40 45

Glu Asp Gly Leu Ala Glu Ala Pro Glu His Gly Thr Thr Ala Thr Phe 50 60

His Arg Cys Ala Lys Asp Pro Trp Arg Leu Pro Gly Thr Tyr Val Val 65 70 75 80

Val Leu Lys Glu Glu Thr His Leu Ser Gln Ser Glu Arg Thr Ala Arg $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Arg Leu Gln Ala Gln Ala Xaa Arg Arg Gly Tyr Leu Pro Arg Ser Cys 100 105 110

Met Ser Ser Met Ala Phe Phe Leu 115 120

<210> 527

<211> 269

<212> PRT

<213> Homo sapiens

<220>

- <221> SITE
- <222> (236)
- <223> Xaa equals any of the naturally occurring bamino acids
- <220>
- <221> SITE
- <222> (257)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <400> 527
- Met Gly Thr Val Ser Ser Arg Arg Ser Trp Trp Pro Leu Pro Leu Leu 1 5 10 15
- Leu Leu Leu Leu Leu Leu Gly Pro Ala Gly Ala Arg Ala Gln Glu 20 25 30
- Asp Glu Asp Gly Asp Tyr Glu Glu Leu Val Leu Ala Leu Arg Ser Glu
 35 40 45
- Glu Asp Gly Leu Ala Glu Ala Pro Glu His Gly Thr Thr Ala Thr Phe
 50 60
- His Arg Cys Ala Lys Asp Pro Trp Arg Leu Pro Gly Thr Tyr Val Val 65 70 75 80
- Val Leu Lys Glu Glu Thr His Leu Ser Gln Ser Glu Arg Thr Ala Arg 85 90 95
- Arg Leu Gln Ala Gln Ala Ala Arg Arg Gly Tyr Leu Thr Lys Ile Leu 100 105 110
- His Val Phe His Gly Leu Leu Pro Gly Phe Leu Val Lys Met Ser Gly 115 120 125
- Asp Leu Leu Glu Leu Ala Leu Lys Leu Pro His Val Asp Tyr Ile Glu 130 135 140
- Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg 145 150 155 160
- Ile Thr Pro Pro Arg Tyr Arg Ala Asp Glu Tyr Gln Pro Pro Asp Gly
 165 170 175
- Gly Ser Leu Val Glu Val Tyr Leu Leu Asp Thr Ser Ile Gln Ser Asp $180 \\ \hspace{1.5cm} 185 \\ \hspace{1.5cm} 190 \\ \hspace{1.5cm}$
- His Arg Glu Ile Glu Gly Arg Val Met Val Thr Asp Phe Glu Asn Val 195 200 205
- Pro Glu Glu Asp Gly Thr Arg Phe His Arg Gln Ala Ser Lys Cys Asp 210 215 220
- Ser His Gly Pro Thr Trp Gln Gly Trp Ser Ala Xaa Gly Met Pro Ala 225 230 235 240
- Trp Pro Arg Val Pro Ala Cys Ala Cys Ala Cys Phe Pro Lys Lys 245 250 255

```
Xaa Pro Leu Gly Gly Pro Pro Gln Lys Lys Gly Gly 260 265
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<210> 528

<211> 17

<212> PRT

<213> Homo sapiens

<400> 528

Gly Trp Cys Ser Arg Arg Asp Ser Cys Trp Pro Ser Pro Pro Thr Met

Pro

<210> 529

<211> 45

<212> PRT

<213> Homo sapiens

<400> 529

Thr Trp Trp Pro Pro Cys Pro Pro Ala Pro Met Gly Gln Val Gly Ser 1 5 10 15

Cys Phe Ala Gly Leu Cys Gly Gln His Thr Arg Gly Leu His Gly Trp
20 25 30

Pro Gln Pro Ser Pro Ala Ala Pro Gln Met Arg Ser Cys
35 40 45

<210> 530

<211> 70

<212> PRT

<213> Homo sapiens

<400> 530

Met Lys Pro Lys His Leu Glu Trp Cys Leu Ala His Ser Trp Cys Val 1 5 10 15

Ile Trp Leu Ser Phe Val Ser Pro Pro Thr Ser His Leu Glu Cys Asp

Gly Phe Pro Gly Ser Leu Leu Pro Pro Cys Glu Glu Gly Arg Cys Phe
35 40 45

Pro Phe Thr Phe His His Asp Cys His Gly Cys Ser Pro Leu Gln 50 60

Ser Ser Pro Gly Gln His 65 70 <210> 531

<211> 104

<212> PRT

<213> Homo sapiens

<400> 531

Met Leu Trp Leu Leu Phe Phe Leu Val Thr Ala Ile His Ala Glu Leu 1 5 10 15

Cys Gln Pro Gly Ala Glu Asn Ala Phe Lys Val Arg Leu Ser Ile Arg 20 25 30

Thr Ala Leu Gly Asp Lys Ala Tyr Ala Trp Asp Thr Asn Glu Glu Tyr 35 40 45

Leu Phe Lys Ala Met Val Ala Phe Ser Met Arg Lys Val Pro Asn Arg 50 55 60

Glu Ala Thr Glu Ile Ser His Val Leu Cys Asn Val Thr Gln Arg
65 70 75 80

Tyr His Ser Gly Leu Trp Leu Gln Thr Leu Gln Lys Ile Thr Pro Phe 85 90 95

Leu Leu Arg Cys Asn Gln Pro

<210> 532

<211> 38

<212> PRT

<213> Homo sapiens

<400> 532

Met Trp Leu Ser Pro Val Pro Gly Val Cys Ala Ala Val Leu Ala Leu 1 5 10 15

Ser Phe Trp Ile Ala Lys Phe Pro Gly Glu Gly Thr Ala Ile Ala Lys 20 25 30

Ala Leu Gly Arg Leu Lys 35

<210> 533

<211> 42

<212> PRT

<213> Homo sapiens

<400> 533

Met Glu Pro Ala Met Val Leu Lys Phe Leu Ser SerLeu Pro Glu Asn 1 5 10 15

Leu Phe Leu Pro Ser Leu Leu Phe Phe Ala Trp Leu Cys Trp Asn Met 20 25 30

Val Cys Gly Ser Pro Val Ser Cys Pro Tyr 35 40

<210> 534

<211> 215

<212> PRT

<213> Homo sapiens

<400> 534

Met Tyr Leu Ser Ile Ile Phe Leu Ala Phe Val Ser Ile Asp Arg Cys 1 10 15

Leu Gln Leu Thr His Ser Cys Lys Ile Tyr Arg Ile Gln Glu Pro Gly 20 25 30 .

Phe Ala Lys Met Ile Ser Thr Val Val Trp Leu Met Val Leu Leu Ile 35 40 45

Met Val Pro Asn Met Met Ile Pro Ile Lys AspIle Lys Glu Lys Ser 50 55 60

Asn Val Gly Cys Met Glu Phe Lys Lys Glu Phe Gly Arg Asn Trp His 65 70 75 80

Leu Leu Thr Asn Phe Ile Cys Val Ala Ile Phe Leu AsnPhe Ser Ala 85 90 95

Ile Ile Leu Ile Ser Asn Cys Leu Val Ile Arg Gln Leu Tyr Arg Asn 100 105 110

Lys Asp Asn Glu Asn Tyr Pro Asn Val Lys Lys Ala Leu IleAsn Ile 115 120 125

Leu Leu Val Thr Thr Gly Tyr Ile Ile Cys Phe Val Pro Tyr His Ile 130 135 140

Val Arg Ile Pro Tyr Thr Leu Ser Gln Thr Glu Val Ile Thr Asp Cys 145 150 155

Ser Thr Arg Ile Ser Leu Phe Lys Ala Lys Glu Ala Thr Leu Leu Leu 165 170 175

Ala Val Ser Asn Leu Cys Phe Asp Pro Ile Leu Tyr Tyr His Leu Ser 180 185 190

Lys Ala Phe Arg Ser Lys Val Thr Glu Thr Phe Ala Ser Pro Lys Glu
195 200 205

Thr Lys Val Arg Lys Lys Asn 210 215 <210> 535

<211> 77

<212> PRT

<213> Homo sapiens

<400> 535

Met Leu Leu Ala Thr Leu Leu Leu Leu Leu Gly Gly Ala Leu Ala 1 5 10 15

His Pro Asp Arg Ile Ile Phe Pro Asn His Ala Cys Glu Asp Pro Pro 20 25 30

Ala Val Leu Leu Glu Val Gln Gly Thr Leu Gln Arg Pro Leu Val Arg 35 40 45

Asp Ser Arg Thr Ser Pro Ala Asn Cys Thr Trp Leu Thr Lys Arg Val 50 60

Gln Gln Met Leu Leu Phe His Ser Tyr Gly Ile Ala Gln 65 70 75

<210> 536

<211> 406

<212> PRT

<213> Homo sapiens

<400> 536

Met His Pro Ala Val Phe Leu Ser Leu Pro Asp Leu Arg Cys Ser Leu 1 5 10 15

Leu Leu Val Thr Trp Val Phe Thr Pro Val Thr Thr Glu Ile Thr 20 25 30

Ser Leu Asp Thr Glu Asn Ile Asp Glu Ile Leu Asn Asn Ala Asp Val 35 40 45

Ala Leu Val Asn Phe Tyr Ala Asp Trp Cys Arg Phe Ser Gln Met Leu 50 55 60

His Pro Ile Phe Glu Glu Ala Ser Asp Val Ile Lys Glu Glu Phe Pro 65 70 75 80

Asn Glu Asn Gln Val Val Phe Ala Arg Val Asp Cys Asp Gln His Ser 85 90 95

Asp Ile Ala Gln Arg Tyr Arg Ile Ser Lys Tyr Pro Thr Leu Lys Leu 100 105 110

Phe Arg Asn Gly Met Met Lys Arg Glu Tyr Arg Gly Gln Arg Ser 115 120 125

Val Lys Ala Leu Ala Asp Tyr Ile Arg Gln Gln Lys Ser Asp Pro Ile 130 135 140 Gln Glu Ile Arg Asp Leu Ala Glu Ile Thr Thr Leu Asp Arg Ser Lys 150 155 Arg Asn Ile Ile Gly Tyr Phe Glu Gln Lys Asp Ser Asp Asn Tyr Arg 170 Val Phe Glu Arg Val Ala Asn Ile Leu His Asp Asp Cys Ala Phe Leu 185 Ser Ala Phe Gly Asp Val Ser Lys Pro Glu Arg Tyr Ser Gly Asp Asn 200 Ile Ile Tyr Lys Pro Pro Gly His Ser Ala Pro Asp Met Val Tyr Leu 215 Gly Ala Met Thr Asn Phe Asp Val Thr Tyr Asn Trp Ile Gln Asp Lys 230 Cys Val Pro Leu Val Arg Glu Ile Thr Phe Glu Asn Gly Glu Glu Leu Thr Glu Glu Gly Leu Pro Phe Leu Ile Leu Phe His Met Lys Glu Asp 265 Thr Glu Ser Leu Glu Ile Phe Gln Asn Glu Val Ala Arg Gln Leu Ile Ser Glu Lys Gly Thr Ile Asn Phe Leu His Ala Asp Cys Asp Lys Phe Arg His Pro Leu Leu His Ile Gln Lys Thr Pro Ala Asp Cys Pro Val 315 Ile Ala Ile Asp Ser Phe Arg His Met Tyr Val Phe Gly Asp Phe Lys 335 325 330 Asp Val Leu Ile Pro Gly Lys Leu Lys Gln Phe Val Phe Asp Leu His 345 Ser Gly Lys Leu His Arg Glu Phe His His Gly Pro Asp Pro Thr Asp Thr Ala Pro Gly Glu Gln Ala Gln Asp Val Ala Ser Ser Pro Pro Glu 375 380 Ser Ser Phe Gln Lys Leu Ala Pro Ser Glu Tyr Arg Tyr Thr Leu Leu 385 390 395 Arg Asp Arg Asp Glu Leu

<210> 537

405

<211> 103

<212> PRT

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<213> Homo sapiens
<220>
<221> SITE
<222> (77)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 537
Met Ala Phe Leu Leu Glu Arg Ser Gly Thr Leu Leu Ile Cys Ser Met
Trp Trp His His Gly Tyr Ser Asn Ile Thr Gly Thr Glu Gly Glu Arg
                                 25
Arg Asn Leu Lys Arg Asn Lys Thr Asn Phe Arg Arg Phe Gln Asp Gly
Arg Ile Gly Thr Ala Pro Val Tyr Ser Ser Gln Cys Glu Arg Cys Arg
Arg Trp Val Ile Ser Ala Phe Pro Thr Glu Gln Thr Xaa His Gln Lys
Ile Ile Ser His Ala Trp Leu Gly Gly Ser His Ala His Gly Ala Ser
                                     90
Leu Ile Ala Ser Thr Ala Val
            100
<210> 538
<211> 60
<212> PRT
<213> Homo sapiens
<400> 538
Met Arg Lys Val Thr Ile Ser Lys Lys His Ala Leu Leu Cys Phe
Gln Leu Phe Arg Cys Leu Leu Ser Met Tyr Ile Trp Ile Thr Phe Val
Leu Asp Gly Ser Cys Gly Ile His Cys Ser Leu Lys Pro Val Ser Phe
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40

Pro Cys Thr Tyr His Ser Val His Ser Ser Thr Ser

<210> 539 <211> 18 <212> PRT <213> Homo sapiens <400> 539 Ile Pro Asn Glu Met Ala Gly Ser Ile Trp Pro Leu Gly Tyr Leu Ala 1 5 10 15

Thr Leu

<210> 540

<211> 57

<212> PRT

<213> Homo sapiens

<400> 540

Met Pro Pro His Arg Gln Thr Asp Gly Gln Met Gly Leu Pro Ala Pro 1 5 10 15

Ala Leu Trp Val Trp Gly Leu Leu Ser Ser Ser Phe Gln Thr Leu 20 25 30

Leu Pro Ala Phe Pro Lys Pro Pro Ala Leu Asn Leu Gly Cys Ser Thr 35 40 45

Arg Pro Ile Pro Ser Phe Leu Lys Ile 50 55

<210> 541

<211> 93

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (65)

<223> Xaa equals any of the naturally occurring bamino acids

<400> 541

Gln Val Ser Leu Pro Thr Arg Leu Leu Gln Met Pro Gly Met GlyLeu 1 5 10 15

Asp Ser Arg Phe Gln Ala Trp Xaa Pro Ser Pro Tyr Leu Gly Pro Gln 20 25 30

Pro Arg Ala Pro Arg Pro Gly Leu Gln Pro Gly Pro Ser Leu Arg Gly 35 40 45

Ala Glu Phe Arg Glu Ser Cys Pro Arg Ser Gln Lys Arg Gly Arg Glu
50 60

Xaa Gly Arg Pro Cys Pro Gly Cys Arg Pro Gly Gly Trp Gly Leu Pro

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65 70 75 80
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Ala Arg Leu Gly Gln Pro Gln Leu Gln Thr Gly Pro Gly 85 90

<210> 542

<211> 49

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 542

Met Gly Ala His Ser Phe Gly Phe Gln Leu Phe Met Ser Val Ser Val 1 5 10 15

Leu Trp Gly Arg Leu Cys Leu Tyr Gly Arg Phe Ser Val Ile Thr Phe
20 25 30

Ala Ser Pro Pro Thr Thr Phe Met Xaa Ile Gln Cys Cys Ser His Cys 35 40 45

Ser

<210> 543

<211> 104

<212> PRT

<213> Homo sapiens

<400> 543

Met Leu Phe Cys Ile Leu Leu Tyr Thr Leu Gly Ser Ala Arg Cys His 1 5 10 15

His Leu Ser Phe Phe Leu Trp Gly Trp Ser Asn Pro Pro Glu Lys Thr
20 25 30

Pro Leu Ala Ser Trp Arg Gly Val Lys Ala Arg Leu Pro Gly Pro Gly 35 40 45

Cys Gln Leu Leu Gly Ala Ala Gly Ala Glu Ala Gly Ser Cys Gln Ala 50 55 60

Phe Ser Gln Gln Asp Ala Leu Ser Thr His Leu Gly Phe Arg Ile Pro 65 70 75 80

Leu Pro His Leu Gln Met Gly Gln Met Ser Pro Lys Pro Ala Ala Pro 85 90 95

Phe Cys Phe Thr Leu Ser Thr Glu

<210> 544

<211> 148

<212> PRT

<213> Homo sapiens

<400> 544

Met Val Trp Phe Ser Cys Trp Leu Leu Thr Gln Ser Ile Thr Val Ile $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Leu Gly Ala Arg Gly Arg Tyr Gly Arg Leu Cys Val Leu Gln Gly Arg
20 25 30

His Cys Gly Leu Val Asp Lys Ser Gly Ser Pro Asn Pro Phe Ser Ala 35 40 45

Asp Val Leu Ala Val His Ser Gly Gln Val Sær His Ser Pro Glu Pro 50 55 60

Gln Arg Leu Tyr Gln Tyr Asp Glu Asn Lys Tyr Ser Thr Cys Leu Pro 65 70 75 80

His Gly Val Val Ser Ala Val Asn Glu Ile Met Tyr Me Lys His Leu 85 90 95

Val Tyr Leu Ala Pro Asn Lys Ser Ser Thr Thr Ser Ser Leu Ile Thr 100 105 110

Asn Lys Met Glu Leu Glu Gly Cys Ile Ser Leu Asn Lys I& Leu Arg 115 120 125

Gln Ile Leu Gly Val Pro Val Phe Ile Leu Gln Leu Glu Ser Pro Pro 130 135 140

Ser Leu Phe Gly 145

<210> 545

<211> 72

<212> PRT

<213> Homo sapiens

<400> 545

Met Leu Val Leu Phe Lys Phe Leu Pro Leu Thr Ser Ser Gly Arg Phe $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Leu Ser Val Thr Leu Tyr His Arg Val His His Gln Thr Phe Phe Ala 20 25 30

Gly Ala Lys Ser Phe Ser Pro Ala Ser Thr Leu Asn Leu Tyr Ile Cys $35 \hspace{1cm} 40 \hspace{1cm} 45$

Ser Ser Gln Phe Gln Ser Leu Gln Lys Leu Tyr Cys Gly Val Ile Pro 50 55 60

Val Leu Arg Tyr Ala Ser Ile Glu
65 70

<210> 546

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring Famino acids

<400> 546

Met Lys Thr Leu Leu Leu Val Gly Leu Leu Leu Thr Trp Glu Asn 1 5 10 15

Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu 20 25 30

Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala $35 \hspace{1cm} 40 \hspace{1cm} 45$

Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu 50

Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys 65 70 75 80

Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala 85 90 95

Ser Pro Gly Val Phe Asn Xaa Thr Leu Asp Gly Pro Leu Gly Gly Xaa 100 105 110

<210> 547

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

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<222> (71)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (103)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (112)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 547
Met Lys Thr Leu Leu Leu Val Gly Leu Leu Thr Trp Glu Asn
Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu
                                25
Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala
Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu
Glu Arg Lys Ser Leu Leu Xaa Asn Leu Glu Glu Ala Lys Lys Lys
Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala
Ser Pro Gly Val Phe Asn Xaa Thr Leu Asp Gly Pro Leu Gly Gly Xaa
                                105
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<210> 548
<211> 139
<212> PRT
<213> Homo sapiens
<400> 548
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Met Lys Thr Leu Leu Leu Leu Val Gly Leu Leu Leu Thr Pp Glu Asn 1 5 10 15

Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu 20 25 30

Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys ${\tt A}$ n Ala 35 40 45

Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu 50 60

```
Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys
Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala
Ser Gln Gly Val Cys Asn Asp Thr Met Met Ala Leu Trp Glu Glu Cys
                               105
Lys Pro Cys Leu Lys Gln Thr Trp Gly Lys Gly Leu Arg Pro Ser Leu
Gln Lys Gln His Arg Ala Gly Trp Pro Pro Gly
                        135
<210> 549
<211> 7
<212> PRT
<213> Homo sapiens
<400> 549
Leu Leu Val Val Leu Leu Ser
1
                5
<210> 550
<211> 14
<212> PRT
<213> Homo sapiens
<400> 550
Leu Leu Val Gly Leu Gln Gln Leu Val Val Gln Ala Trp
<210> 551
<211> 288
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occuring L-amino acids
<220>
<221> SITE
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<222> (268)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (271)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (273)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (274)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (276)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (286)
<223> Xaa equals any of the naturally occurring bamino acids
Phe Ser Ser Ser Ala Cys Pro Ser Val Xaa Ser Leu Phe Val Xaa Leu
Gly Lys Asn Pro His Asp Ala Gln Gly His Pro Arg Ala Ser Glu Asp
Gln Pro Ser Ser Gly Lys Pro Val Thr Ser Tyr Pro Gly Glu Cys Gly
Phe Val Phe Thr Lys Glu Ala Ser Leu Qu Ile Arg Asp Met Leu Leu
                          55
Ala Asn Lys Val Pro Ala Ala Ala Arg Ala Gly Ala Ile Ala Pro Cys
Glu Val Thr Val Pro Ala Gln Asn Thr Gly Leu Gy Pro Glu Lys Thr
Ser Phe Phe Gln Ala Leu Gly Ile Thr Thr Lys Ile Ser Arg Gly Thr
Ile Glu Ile Leu Ser Asp Val Gln Leu Ile Lys Thr Gy Asp Lys Val
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Gly Ala Ser Glu Ala Thr Leu Leu Asn Met Leu Asn Ile Ser Pro Phe

Ser Phe Gly Leu Ile Ile Gln Gln Val Phe Asp Asn Gly Ser Ile Tyr

135

130

140

145 150 155 160

Asn Pro Glu Val Leu Asp Ile Thr Glu Glu Thr Leu His Ser Arg Phe 165 170 175

Leu Glu Gly Val Arg Asn Val Ala Ser Val Cys Leu Gln Ile Gly Tyr 180 185 190

Pro Thr Val Ala Ser Val Pro His Ser Ile Ile Asn Gly Tyr Lys Arg 195 200 205

Val Leu Ala Leu Ser Val Glu Thr Asp Tyr Thr Phe Pro Leu Ala Glu 210 215 220

Lys Val Lys Ala Phe Leu Ala Asp Pro Ser Ala Phe Val Ala Ala 225 230 235 240

Ala Lys Val Glu Ala Lys Glu Glu Ser Glu Glu Xaa Asp Glu Xaa Ile 260 265 270

Xaa Xaa Ser Xaa Ile Ser Lys Ser Asn Asn Ser Ser Gln Xaa Ile Val 275 280 285

<210> 552

<211> 554

<212> PRT

<213> Homo sapiens

<400> 552

Gly Gly Gly Tyr Ala Leu Ala Leu Leu Val Leu Leu Leu Gly Pro 1 10 15

Gly Gly Trp Cys Leu Ala Glu Pro Pro Arg Asp Ser Leu Arg Glu Glu 20 25 30

Leu Val Ile Thr Pro Leu Pro Ser Gly Asp Val Ala Ala Thr Phe Gln 35 40 45

Phe Arg Thr Arg Trp Asp Ser Glu Leu Gln Arg Glu Gly Val Ser His 50 55 60

Tyr Arg Leu Phe Pro Lys Ala Leu Gly Gln Leu Ile Ser Lys Tyr Ser 65 70 75 80

Leu Arg Glu Leu His Leu Ser Phe Thr Gln Gy Phe Trp Arg Thr Arg 85 90 95

Tyr Trp Gly Pro Pro Phe Leu Gln Ala Pro Ser Asp Thr Asp His Tyr 100 105 110

Phe Leu Arg Tyr Ala Val Leu Pro Arg Glu Val ¥1 Cys Thr Glu Asn Leu Thr Pro Trp Lys Lys Leu Leu Pro Cys Ser Ser Lys Ala Gly Leu 135 Ser Val Leu Leu Lys Ala Asp Arg Leu Phe His Thr Ser Tyr His Ser 155 150 Gln Ala Val His Ile Arg Pro Val Cys Arg Asn Ala Arg Cys Thr Ser Ile Ser Trp Glu Leu Arg Gln Thr Leu Ser Val Val Phe Asp Ala Re 185 Ile Thr Gly Gln Gly Lys Lys Asp Trp Ser Leu Phe Arg Met Phe Ser 200 Arg Thr Leu Thr Glu Pro Cys Pro Leu Ala Ser Glu Ser Arg Val Tyr Val Asp Ile Thr Thr Tyr Asn Gln Asp Asn Glu Thr Leu Glu Val His 235 230 Pro Pro Pro Thr Thr Tyr Gln Asp Val Ile Leu Gly Thr Arg Lys Thr Tyr Ala Ile Tyr Asp Leu Leu Asp Thr Ala Met Ile Asn Asn Ser Arg Asn Leu Asn Ile Gln Leu Lys Trp Lys Arg Pro Pro Glu Asn Glu 280 Ala Pro Pro Val Pro Phe Leu His Ala Gln Arg Tyr Val Ser Gly Tyr Gly Leu Gln Lys Gly Glu Leu Ser Thr Leu Leu Tyr Asn Thr His Pro 315 Tyr Arg Ala Phe Pro Val Leu Leu Leu Asp Thr Val Pro Trp Tyr Leu 325 Arg Leu Tyr Val His Thr Leu Thr Ile Thr Ser Lys Gly Lys Glu Asn Lys Pro Ser Tyr Ile His Tyr Gln Pro Ala Gln Asp Arg Leu Gln Pro His Leu Leu Glu Met Leu Ile Gln Leu Pro Ala Asn Ser Val Thr Lys 380 Val Ser Ile Gln Phe Glu Arg Ala Leu Leu Lys Trp Thr Glu Tyr Thr 395 Pro Asp Pro Asn His Gly Phe Tyr Val Ser Pro Ser Val Leu Ser Ala 410 405

Leu Val Pro Ser Met Val Ala Ala Lys Pro Val Asp Trp Glu Glu Ser
420 425 430

Pro Leu Phe Asn Ser Leu Phe Pro Val Ser Asp Gly Ser Asn Tyr Phe 435 440 445

Val Arg Leu Tyr Thr Glu Pro Leu Leu Val Asn Leu Pro Thr Pro Asp 450 455 460

Phe Ser Met Pro Tyr Asn Val Ile Cys Leu Thr Cys Thr Val Val Ala 465 470 475 480

Val Cys Tyr Gly Ser Phe Tyr Asn Leu Leu Thr Arg Thr Phe Pro His
485 490 495

Arg Gly Ala Pro His Arg Trp Pro Gly Gln Ala Ala Gly Gln Pro Tyr 500 505 510

Pro Ala Arg Pro Ser Val Pro Pro Thr Leu Ile Leu Ala Leu Ser Ser 515 520 525

Ser Cys Ser Cys Arg Phe Ser Leu Gly Arg Gly Ala Gln Gly Leu Phe 530 540

Leu Pro Leu Ala Leu Leu Arg Val Gly Re 545 550

<210> 553

<211> 453

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (432)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 553

Met Arg Met Ala Ser Ile Met Val Trp Val Met Ile Ile Met $brac{1}{1}$ 10 15

Leu Val Leu Gly Tyr Gly Ile Phe His Cys Tyr Met Glu Tyr Ser Arg 20 25 30

Leu Arg Gly Glu Ala Gly Ser Asp Val Ser Leu Val Asp Leu Gly $\Re 6$ 35 40 45

Gln Thr Asp Phe Arg Val Tyr Leu His Leu Arg Gln Thr Trp Leu Ala 50 55 60

Phe Met Ile Ile Leu Ser Ile Leu Glu Val Ile Ile Ile Leu Leu 65 70 75 80

Ile Phe Leu Arg Lys Arg Ile Leu Ile Ala Ile Ala Leu Ile Lys Glu

- Ala Ser Arg Ala Val Gly Tyr Val Met Cys Ser Leu Leu Tyr Pro Leu 100 105 110
- Val Thr Phe Phe Leu Leu Cys Leu Cys Ile Ala Tyr Trp Ala Ser Thr 115 120 125
- Ala Val Phe Leu Ser Thr Ser Asn Glu Ala Val Tyr Lys Ile Phe Asp 130 135 140
- Asp Ser Pro Cys Pro Phe Thr Ala Lys Thr Cys Asn Pro Glu Thr Phe 145 150 155 160
- Pro Ser Ser Asn Glu Ser Arg Gln Cys Pro Asn Ala Arg Cys Gln Phe 165 170 175
- Ala Phe Tyr Gly Glu Ser Gly Tyr His Arg Ala Leu Leu Gly Leu 180 185 190
- Gln Ile Phe Asn Ala Phe Met Phe Phe Trp Leu Ala Asn Phe Val Leu 195 200 205
- Ala Leu Gly Gln Val Thr Leu Ala Gly Ala Phe Ala Ser Tyr Tyr Trp 210 220
- Ala Leu Arg Lys Pro Asp Asp Leu Pro Ala Phe Pro Leu Phe Ser Ala 225 230 235 240
- Phe Gly Arg Ala Leu Arg Tyr His Thr Gly Ser Leu Ala Phe Gly Ala 245 250 255
- Leu Ile Leu Ala Ile Val Gln Ile Ile Arg Val Ile Leu Glu Tyr Leu 260 265 270
- Asp Gln Arg Leu Lys Ala Ala Glu Asn Lys Phe Ala Lys Cys Leu Met 275 280 285
- Thr Cys Leu Lys Cys Cys Phe Trp Cys Leu Glu Lys Phe Ile Lys Phe 290 295 300
- Leu Asn Arg Asn Ala Tyr Ile Met Ile Ala Ile Tyr Gly Thr Asn Phe 305 310 315 320
- Cys Thr Ser Ala Arg Asn Ala Phe Phe Leu Leu Met Arg Asn Ile Ile 325 330 335
- Arg Val Ala Val Leu Asp Lys Val Thr Asp Phe Leu Phe Leu Gly 340 345 350
- Lys Leu Leu Ile Val Gly Ser Val Gly Ile Leu Ala Phe Phe Phe 355 360 365
- Thr His Arg Ile Arg Ile Val Gln Asp Thr Ala Pro Pro Leu Asn Tyr 370 375 380
- Tyr Trp Val Pro Ile Leu Thr Val Ile Val Gly Ser Tyr Leu Ile Ala

385 390 395 400

His Gly Phe Phe Ser Val Tyr Gly Met Cys Val Asp Thr Leu Phe Leu 405 410 415

Cys Phe Leu Glu Asp Leu Glu Arg Asn Asp Gly Ser Ala Glu Arg Xaa 420 425 430

Tyr Phe Met Ser Ser Thr Leu Lys Lys Leu Leu Asn Lys Thr Asn Lys 435 440 445

Lys Ala Ala Glu Ser 450

<210> 554

<211> 96

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurringL-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 554

Ala Ala Arg Glu Gly Ala Pro Pro Pro Cys Pro Thr Ser Ala Ile Gly $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Arg Ala Ser Leu Ser Leu Arg Asp Xaa Gly Arg Gly Leu Arg Asp Ala 20 25 30

Arg Arg Glu Lys Arg Arg Gly Val Arg GlyGln Asp Gly Gly Asp Tyr 35 40 45

Gly Trp Cys Gly Pro Ala Arg Gly Arg Gly Val Ala Ala Lys Gly Thr 50 55 60

Ala Glu Gly Pro Thr Gly Glu Asn Arg Ala Gln Gly Xaa Lys XaaGly
65 70 75 80

Val Arg Val Ala Val Glu Ala Ser Ser Val Arg Gly Pro Gly Arg Ala 85 90 95

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<211> 48
<212> PRT
<213> Homo sapiens
<400> 555
Met Met Leu Tyr Gln Asn Met Leu Leu Tyr Phe Arg Ile Ile Gly Val
Leu Ala Leu Asn Phe Ser Ile Ser Pro Ile Phe Phe His Gly Ser Leu
Gly Lys Leu Tyr Val Tyr Ser Ala Ala Lys Tyr Ser Leu Glu Leu Lys
                             40
<210> 556
<211> 10
<212> PRT
<213> Homo sapiens
<400> 556
Ile Tyr Gln His Phe Ser Leu Trp Leu Gly
<210> 557
<211> 4
<212> PRT
<213> Homo sapiens
<400> 557
Met Phe Lys Met
 1
<210> 558
<211> 115
<212> PRT
<213> Homo sapiens
<400> 558
Met Val Pro Asn Trp Ile Gln Gly Arg Trp Asp Val Leu &u Cys Val
                                      10
Leu Thr Val Gly Val Leu Pro Ser Ile Gly Ser Arg Gly Gly Trp Phe
```

20

<210> 555

25

30

Gly Thr Gln Val Pro Cys Leu Ile Pro Gly Ala Leu Ala Ser \oplus u His 35 40 45

Arg Gly Thr Ala Leu Gln Leu Ser Tyr Pro Phe Ser Met Ala Gly Arg 50 55 60

Thr Ala Glu Arg Pro Cys Ser Met Thr Asn His Ser Phe His Leu Leu 65 70 75 80

Ser Ile Tyr Trp Glu Leu Gly Thr Val Leu Ser Val Lys Arg Val Leu 85 90 95

Thr His Leu Leu Gln Gln Pro Gly Lys Ala Val Leu Pro Leu Ala Pro 100 105 110

Ala Gln Ser 115

<210> 559

<211> 174

<212> PRT

<213> Homo sapiens

<400> 559

Met Val Pro Asn Trp Ile Gln Gly Arg Trp Asp Val Leu Leu Cys Val 1 5 10 15

Leu Thr Val Gly Val Leu Pro Ser Ile Gly Ser Arg Gly Gly Trp Phe 20 25 30

Gly Thr Gln Val Pro Cys Leu Ile Pro Gly Ala Leu Ala Ser Leu His $35 \hspace{1cm} 40 \hspace{1cm} 45$

Arg Gly Thr Ala Leu Gln Leu Ser Tyr Pro Phe Ser Met Ala Gly Arg
50 55 60

Thr Ala Glu Arg Pro Cys Ser Met Thr Asn His Ser Phe His Leu Leu 65 70 75 80

Ser Ile Tyr Trp Glu Leu Gly Thr Val Leu Ser Val Lys Arg Val Leu 85 90 95

Thr His Leu Leu Gln Gln Pro Gly Lys Ala Gly Ser Ser Val Ser Pro 100 105 110

Cys Ser Lys Leu Gly Asp Leu Glu His Arg Arg Ser Ser Ala Trp Leu 115 120 125

Lys Ala His Ser Ser Glu Val Gln Ile Leu Cys Pro Ser Trp His Pro 130 140

Ser Leu Gly Gly Ser Gly Val Gly Ser Leu Gln Ser Val Pro Gly Gly 145 150 155 160

Trp Met Thr Ser Cys Ser Leu Pro Ala Thr Pro Arg Phe Pro

165 170

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<210> 560
<211> 228
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (92)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (134)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (170)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (195)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (205)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (209)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (214)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 560
Met Val Pro Asn Trp Ile Gln Gly Arg Trp Asp Val Leu Leu Cys Val
Leu Thr Val Gly Val Leu Pro Ser Ile Gly Ser Arg Gly Gly Trp Phe
Gly Thr Gln Val Pro Cys Leu Ile Pro Gly Ala Leu Ala Ser Leu His
                                                   45
Arg Gly Thr Ala Leu Gln Leu Ser Tyr Pro Phe Ser Met Ala Gly Arg
                                               60
                          55
     50
```

Thr Ala Glu Arg Pro Cys Ser Met Thr Asn His Ser Phe His Leu Leu 65 70 75 80

Ser Ile Tyr Trp Glu Leu Gly Thr Val Leu Ser Xaa Lys Arg Val Leu 85 90 95

Thr His Leu Leu Gln Gln Pro Gly Lys Ala Gly Ser Ser Val Ser Pro 100 105 110

Cys Ser Lys Leu Gly Asp Leu Glu His Arg Arg Ser Ser Ala Trp Leu 115 120 125

Lys Ala His Ser Ser Xaa Val Gln Ile Leu Cys Pro Ser Trp His Pro 130 135 140

Ser Leu Gly Gly Ser Gly Val Gly Ser Leu Gln Ser Val Pro Gly Gly 145 150 155 160

Trp Met Thr Lys Leu Gln Pro Ser Arg Xaa Pro Thr Ile Ser Ile Ala 165 170 175

Gln Trp Ser Gln Lys Glu Thr Asp His Phe Thr Asp Gln Arg Asn Lys 180 185 190

Gly Ala Xaa Leu Leu Asn Pro Gly Ala Ser Asp Arg Xaa Lys Pro Glu 195 200 205

Xaa Arg Thr Lys Lys Xaa Pro Val Asn Ser Glu Pro Gly Glu Thr Leu 210 215 220

Pro Phe Thr Asn 225

<210> 561

<211> 84

<212> PRT

<213> Homo sapiens

<400> 561

Asp Asn Phe Leu Leu Gly Val Ala TrpPhe Phe Arg Gly Arg Gly Ser 1 5 10 15

Ala His Val Gly Val Val Ser Arg Gln Lys Gln Trp Glu Gly Thr 20 25 30

Ala Lys His Ala Ala Trp Asp Tyr Gly CysPro Gln Ser Cys Ser Phe 35 40 45

Ser Lys Gly Val Phe Cys Leu Phe Leu Arg Gln Gly His Thr Leu Ser 50 60

Pro Arg Met Glu Cys Ser Gly Pro Ile Leu Ala His Cys Asn LeuGlu 65 70 75 80

Leu Leu Gly Ser

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<210> 562
<211> 69
<212> PRT
<213> Homo sapiens
<400> 562
Met Ser Arg Lys Ser Leu Ala Phe Pro Ile Ile Cys Ser Tyr Leu Cys
Phe Leu Thr Val Ala Thr Cys Ser Ile Ala Cys Thr Thr Val Phe Phe
             20
Ala Asn Leu Arg His Thr Arg Tyr Ile Cys Ile Glu Leu Ser Ala Leu
Glu Thr Ser Gly Val Ile Ser Pro Gln Ile Asn Asn Val Pro Glu Val
His Gly Lys Tyr Ser
 65
<210> 563
<211> 52
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 563
Met Gln Arg Leu Gly Lys Ala Pro Gly Thr Trp Gln Ala Ile Ser Lys
                                     10
Cys Trp Leu Leu Leu Leu Ser Leu Pro Phe Ser Gln Ser Ile Ile
             20
Ile Ser Leu Xaa Xaa Gly Thr Met Ser Tyr Leu Pro Leu Tyr Phe Pro
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Gln Tyr Phe Pro 50

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<210> 564
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<211> 86

<212> PRT

<213> Homo sapiens

<400> 564

Ser Leu Lys His Phe Trp Ser Gln Gly Phe Trp Ile Lys Asp Thr Gln $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Cys Ala Thr Cys Arg Met Val Val Ala Arg Trp Glu Glu Arg Met Glu 20 25 30

Ser Tyr Cys Leu Met Ile Gln Cys Phe Arg Leu Gly Arg Trp Lys Val 35 40 45

Leu Glu Met Cys Asp Gly Tyr Gly Cys Ala Thr Met Gly Arg Tyr Leu 50 55 60

Val Leu Leu Asn Cys Ala His Leu Lys Met Val Lys Met Ile Asn Phe 65 70 75 80

Val Tyr Val Leu Lys Gln

<210> 565

<211> 53

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 565

Met Cys Lys Ala Val Cys Lys His Arg Leu Arg Leu Phe Ala Val Ser $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ser Phe Ser Leu Gly Leu Gly Trp Val Cys Val Leu Val Leu Met Leu 20 25 30

Trp_Pro Val Arg Leu Ser Leu Ala Xaa Arg Pro Val Gln Leu Gln Gd 35 40 45

Arg Arg Ser His Cys 50

<210> 566

<211> 97

<212> PRT

<213> Homo sapiens

<400> 566

Met Tyr Arg Ala Ile Asp Ser Phe Pro Arg Trp Arg Ser Tyr Phe Tyr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Phe Ile Thr Leu Ile Phe Phe Leu Ala Trp Leu Val Lys Asn Val Phe 20 25 30

Ile Ala Val Ile Ile Glu Thr Phe Ala Glu Ile Arg Val Gln Phe Gln 35 40 45

Gln Met Trp Gly Ser Arg Ser Ser Thr Thr Ser Thr Ala Thr Thr Gln
50 60

Met Phe His Glu Asp Ala Ala Gly Gly Trp Gln Leu Val Ala Val Gly 65 70 75 80

Cys Gln Gln Ala Pro Gly Thr Arg Pro Ser Leu Pro Pro Gly Ala Val 85 90 95

Gln

<210> 567

<211> 121

<212> PRT

<213> Homo sapiens

<400> 567

Met Gly Leu Trp Leu Gly Met Leu AlaCys Val Phe Leu Ala Thr Ala 1 5 10 15

Ala Phe Val Ala Tyr Thr Ala Arg Leu Asp Trp Lys Leu Ala Ala Glu 20 25 30

Glu Ala Lys Lys His Ser Gly Arg Gln GlnGln Gln Arg Ala Glu Ser 35 40 45

Thr Ala Thr Arg Pro Gly Pro Glu Lys Ala Val Leu Ser Ser Val Ala 50 55 60

Thr Gly Ser Ser Pro Gly Ile Thr Leu Thr Thr Tyr Ser Arg SerGlu 65 70 75 80

Cys His Val Asp Phe Phe Arg Thr Pro Glu Glu Ala His Ala Leu Ser 85 90 95

Ala Pro Thr Ser Arg Leu Ser Val Lys Gln Leu Val Ile ArgArg Gly
100 105 110

Ala Ala Leu Gly Ala Ala Ser Ala His 115 120

<210> 568

<211> 606

<212> PRT <213> Homo sapiens

<400> 568

Met Thr Val Val Gly Asn Pro Arg Ser Trp Ser 🗣s Gln Trp Leu Pro 1 5 10 15

Ile Leu Ile Leu Leu Gly Thr Gly His Gly Pro Gly Val Glu Gly
20 25 30

Val Thr His Tyr Lys Ala Gly Asp Pro Val Ile Leu ∜r Val Asn Lys 35 40 45

Val Gly Pro Tyr His Asn Pro Gln Glu Thr Tyr His Tyr Tyr Gln Leu
50 60

Pro Val Cys Cys Pro Glu Lys Ile Arg His Lys Ser Leu Ser Leu Gly 65 70 75 80

Glu Val Leu Asp Gly Asp Arg Met Ala Glu Ser Leu Tyr Glu Ile Arg 85 90 95

Phe Arg Glu Asn Val Glu Lys Arg Ile Leu Cys His Met Gln Leu Ser 100 105 110

Ser Ala Gln Val Glu Gln Leu Arg Gln Ala Ile Glu Glu Leu Tyr Tyr 115 120 125

Phe Glu Phe Val Val Asp Asp Leu Pro Ile Arg Gly Phe Val Gly Tyr 130 135 140

Met Glu Glu Ser Gly Phe Leu Pro His Ser His Lys Ile Gly Leu Trp 145 150 155 160

Thr His Leu Asp Phe His Leu Glu Phe His Gly Asp Arg Ile Ile Phe 165 170 175

Ala Asn Val Ser Val Arg Asp Val Lys Pro His Ser Leu Asp Gly Leu 180 185 190

Arg Pro Asp Glu Phe Leu Gly Leu Thr His Thr Tyr Ser Val Arg Trp 195 200 205

Ser Glu Thr Ser Val Glu Arg Arg Ser Asp Arg Arg Gly Asp Asp 210 215 220

Gly Gly Phe Phe Pro Arg Thr Leu Glu Ile His Trp Leu Ser Ile Ile 225 230 235 240

Asn Ser Met Val Leu Val Phe Leu Leu Val Gly Phe Val Ala Val Ile 245 250 255

Leu Met Arg Val Leu Arg Asn Asp Leu Ala Arg Tyr Asn Leu Asp Glu 260 265 270

Glu Thr Thr Ser Ala Gly Ser Gly Asp Asp Phe Asp Gln Gly Asp Asn 275 280 285

Gly Trp Lys Ile Ile His Thr Asp Val Phe Arg Phe Pro Pro Tyr Arg Gly Leu Leu Cys Ala Val Leu Gly Val Gly Ala Gln Phe Leu Ala Leu 310 315 Gly Thr Gly Ile Ile Val Met Ala Leu Leu Gly Met Phe Asn Val His 325 Arg His Gly Ala Ile Asn Ser Ala Ala Ile Leu Leu Tyr Ala Leu Thr Cys Cys Ile Ser Gly Tyr Val Ser Ser His Phe Tyr Arg Gln Ile Gly Gly Glu Arg Trp Val Trp Asn Ile Ile Leu Thr Thr Ser Leu Phe Ser Val Pro Phe Phe Leu Thr Trp Ser Val Val Asn Ser Val His Trp Ala 390 395 Asn Gly Ser Thr Gln Ala Leu Pro Ala Thr Thr Ile Leu Leu Leu Leu 405 410 Thr Val Trp Leu Leu Val Gly Phe Pro Leu Thr Val Ile Gly Gly Ile Phe Gly Lys Asn Asn Ala Ser Pro Phe Asp Ala Pro Cys Arg Thr Lys Asn Ile Ala Arg Glu Ile Pro Pro Gln Pro Trp Tyr Lys Ser Thr Val 455 Ile His Met Thr Val Gly Gly Phe Leu Pro Re Ser Ala Ile Ser Val 475 Glu Leu Tyr Tyr Ile Phe Ala Thr Val Trp Gly Arg Glu Gln Tyr Thr 485 490 Leu Tyr Gly Ile Leu Phe Phe Val Phe Ala Ile Leu Leu Ser Val Gly 505 Ala Cys Ile Ser Ile Ala Leu Thr Tyr Phe Gln Leu Ser Gly Glu Asp 520 Tyr Arg Trp Trp Trp Arg Ser Val Leu Ser Val Gly &r Thr Gly Leu 535 Phe Ile Phe Leu Tyr Ser Val Phe Tyr Tyr Ala Arg Arg Ser Asn Met 555 Ser Gly Ala Val Gln Thr Val Glu Phe Phe Gly Tyr Ser Leu &u Thr 565 Gly Tyr Val Phe Phe Leu Met Leu Gly Thr Ile Ser Phe Phe Ser Ser 585

Leu Lys Phe Ile Arg Tyr Ile Tyr Val Asn Leu Lys Met Asp 595 600 605

<210> 569

<211> 295

<212> PRT

<213> Homo sapiens

<400> 569

Met Gly Leu Pro Val Ser Trp Ala Pro Pro Ala Leu Trp Val Leu Gly
1 5 10 15

Cys Cys Ala Leu Leu Leu Şer Leu Trp Ala Leu Cys Thr Ala Cys Arg 20 25 30

Arg Pro Glu Asp Ala Val Ala Pro Arg Lys Arg Ala Arg Arg Gln Arg 35 40 45

Ala Arg Leu Gln Gly Ser Ala Thr Ala Ala Glu Ala Ser Leu Leu Arg 50 55 60

Arg Thr His Leu Cys Ser Leu Ser Lys Ser Asp Thr Arg Leu His Glu 65 70 75 80

Leu His Arg Gly Pro Arg Ser Ser Arg Ala Leu Arg Pro Ala Ser Met $85 \hspace{1cm} 90 \hspace{1cm} 95$

Asp Leu Leu Arg Pro His Trp Leu Glu Val Ser Arg Asp Ile Thr Gly 100 105 110

Pro Gln Ala Ala Pro Ser Ala Phe Pro His Gln Glu Leu Pro Arg Ala 115 120 125

Leu Pro Ala Ala Ala Ala Thr Ala Gly Cys Ala Gly Leu Glu Ala Thr 130 135 140

Tyr Ser Asn Val Gly Leu Ala Ala Leu Pro Gly Val Sæ Leu Ala Ala 145 150 155 160

Ser Pro Val Val Ala Glu Tyr Ala Arg Val Gln Lys Arg Lys Gly Thr 165 170 175

His Arg Ser Pro Gln Glu Pro Gln Gln Gly Lys Th Glu Val Thr Pro 180 185 190

Ala Ala Gln Val Asp Val Leu Tyr Ser Arg Val Cys Lys Pro Lys Arg 195 200 205

Arg Asp Pro Gly Pro Thr Thr Asp Pro Leu Asp Pro Lys Gly Gd Gly 210 215 220

Ala Ile Leu Ala Leu Ala Gly Asp Leu Ala Tyr Gln Thr Leu Pro Leu 225 230 235 240

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Arg Ala Leu Asp Val Asp Ser Gly Pro Leu Glu Asn Val Tyr Glu Ser
                245
Ile Arg Glu Leu Gly Asp Pro Ala Gly Arg Ser Ser Thr Cys Gly Ala
                                265
Gly Thr Pro Pro Ala Ser Ser Cys Pro Ser Leu Gly Arg Gly Trp Arg
                            280
Pro Leu Pro Ala Ser Leu Pro
    290
<210> 570
<211> 37
<212> PRT
<213> Homo sapiens
<400> 570
Met Gly Leu Pro Val Ser Trp Ala Pro Pro Ala Leu Trp Val Leu Gly
                  5
Cys Cys Ala Leu Leu Leu Ser Leu Trp Ala Leu Cys Thr Ala Cys Arg
                                  25
Ser Pro Arg Thr Leu
         35
<210> 571
<211> 56
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 571
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Met Arg Phe Trp Phe Leu Val Phe Xaa Phe Phe Phe Pro Glu Ala

His Val Tyr Pro Thr Ser Trp Xaa Val Ser Glu Gln Gly Xaa Ala Thr

25

20

10

Ile Ser Val Thr Pro Gly Ile Leu Asn Trp Ile Phe Val Glu Glu Glu 35 40 45

Asn Asn Thr Val Leu Asp Phe Pro 50 55

<210> 572

<211> 106

<212> PRT

<213> Homo sapiens

<400> 572

Arg Ser Arg Ser Lys Pro Arg Cys Asn Cys Glu Ile Val Thr Ile Phe 1 5 10 15

Phe Ala Arg Phe Lys Ile Gly Pro Gly Arg His Arg Lys Arg Lys Ile 20 25 30

Pro Lys Leu Cys Ser Ser Gly Ser Thr Ile Gly Arg Val Tyr Ser Leu 35 40 45

Pro Gly Leu Leu Arg Arg Gly Ser Cys Leu Phe Gly Tyr Ile Thr Pro 50 55 60

Asp Trp Phe Val Leu Lys Ile Asn Val Ile Met Leu Val Ser Tyr Leu 65 70 75 80

Met Val Ser Leu Glu His Ser Pro Leu Ile Leu Phe Glu Arg Val Gly 85 90 95

Gly Arg Asp Cys Glu Gly Arg Glu Lys Cys 100 105

<210> 573

<211> 279

<212> PRT

<213> Homo sapiens

<400> 573

Glu Glu Arg Trp Lys Ser Pro Glu Val Arg Trp Ala Pro Gly Val Ala 1 5 10 15

Met Glu Glu Ser Gly Tyr Glu Ser Val Leu Cys Val Lys Pro Asp Val 20 25 30

His Val Tyr Arg Ile Pro Pro Arg Ala Thr Asn Arg Gly Tyr Arg Ala 35 40 45

Ala Glu Trp Gln Leu Asp Gln Pro Ser Trp Ser Gly Arg Leu Arg Ile 50 55 60

Thr Ala Lys Gly Gln Met Ala Tyr Ile Lys Leu Glu Asp Arg Thr Ser

Gly Glu Leu Phe Ala Gln Ala Pro Val Asp Gln Phe Pro Gly Thr Ala 85 90 95

Val Glu Ser Val Thr Asp Ser Ser Arg Tyr Phe Val Ile Arg Ile Glu 100 105 110

Asp Gly Asn Gly Arg Arg Ala Phe Ile Gly Ile Gly Phe Gly Asp Arg 115 120 125

Gly Asp Ala Phe Asp Phe Asn Val Ala Leu Gln Asp His Phe Lys Trp 130 135 140

Val Lys Gln Gln Cys Glu Phe Ala Lys Gln Ala Gln Asn Pro Asp Gln 145 \$150\$ 155 \$160\$

Gly Pro Lys Leu Asp Leu Gly Phe Lys Glu Gly Gln Thr Ile Lys Leu 165 170 175

Asn Ile Ala Asn Met Lys Lys Lys Glu Gly Ala Ala Gly Asn Pro Arg 180 185 190

Val Arg Pro Ala Ser Thr Gly Gly Leu Ser Leu Leu Pro Pro Pro 195 200 205

Gly Gly Lys Thr Ser Thr Leu Ile Pro Pro Gly Glu Gln Leu Ala 210 215 220

Val Gly Gly Ser Leu Val Gln Pro Ala Val Ala Pro Ser Ser Gly Gly 225 230 235 240

Ala Pro Val Pro Trp Pro Gln Pro Asn Pro Ala Thr Ala Asp Ile Trp 245 250 255

Gly Asp Phe Thr Lys Ser Thr Gly Ser Thr Ser Ser Gln Thr Gln Pro
260 265 270

Gly Thr Gly Trp Val Gln Phe 275

<210> 574

<211> 305

<212> PRT

<213> Homo sapiens

<400> 574

Met Ala Ala Gly Leu Ala Arg Leu Leu Leu Leu Gly Leu Ser Ala 1 5 10 15

Gly Gly Pro Ala Pro Ala Gly Ala Ala Lys Met Lys Val Val Glu Glu 20 25 30

Pro Asn Ala Phe Gly Val Asn Asn Pro Phe Leu Pro Gln Ala Ser Arg 35 40 45 Leu Gln Ala Lys Arg Asp Pro Ser Pro Val Ser Gly Pro Val His Leu 50 55 60

Phe Arg Leu Ser Gly Lys Cys Phe Ser Leu Val Glu Ser Thr Tyr Lys 65 70 75 80

Tyr Glu Phe Cys Pro Phe His Asn Val Thr Gh His Glu Gln Thr Phe 85 90 95

Arg Trp Asn Ala Tyr Ser Gly Ile Leu Gly Ile Trp His Glu Trp Glu 100 105 110

Ile Ala Asn Asn Thr Phe Thr Gly Met Trp Met Ag Asp Gly Asp Ala 115 120 125

Cys Arg Ser Arg Ser Arg Gln Ser Lys Val Glu Leu Ala Cys Gly Lys 130 135 140

Ser Asn Arg Leu Ala His Val Ser Glu Pro Ser Thr Cys Val Tyr Ala 145 150 155 160

Leu Thr Phe Glu Thr Pro Leu Val Cys His Pro His Ala Leu Leu Val
165 170 175

Tyr Pro Thr Leu Pro Glu Ala Leu Gln Arg Gln Trp Asp Gln Val Gl 180 185 190

Gln Asp Leu Ala Asp Glu Leu Ile Thr Pro Gln Gly His Glu Lys Leu 195 200 205

Leu Arg Thr Leu Phe Glu Asp Ala Gly Tyr Leu Lys Thr Pro Glu Glu 210 215 220

Asn Glu Pro Thr Gln Leu Glu Gly Gly Pro Asp Ser Leu Gly Phe Glu 225 230 235 240

Thr Leu Glu Asn Cys Arg Lys Ala His Lys Glu Leu Ser Lys Glu Ile 245 250 255

Lys Arg Leu Lys Gly Leu Leu Thr Gln His Gly Ile Pro Tyr Thr Arg 260 265 270

Pro Thr Glu Thr Ser Asn Leu Glu His Leu Gly His Glu Thr Pro Arg 275 280 285

Ala Lys Ser Pro Glu Gln Leu Arg Gly Asp Pro Gly Leu Arg Gly Ser 290 295 300

Leu 305

<210> 575

<211> 127

<212> PRT

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<213> Homo sapiens
<220>
<221> SITE
<222> (127)
<223> Xaa equals any of the naturally occurring bamino acids
<400> 575
Met Phe Val Leu Leu Tyr Val Thr Ser Phe Ala Ile Cys Ala Ser Gly
Gln Pro Arg Gly Asn Gln Leu Lys Gly Glu Asn Tyr Ser Po Arg Tyr
Ile Cys Ser Ile Pro Gly Leu Pro Gly Pro Pro Gly Pro Pro Gly Ala
Asn Gly Ser Pro Gly Pro His Gly Arg Ile Gly Leu Pro Gly Arg Asp
Gly Arg Asp Gly Arg Lys Gly Glu Lys Gly Glu Lys Gly Thr Ala Gly
Leu Arg Gly Lys Thr Gly Pro Leu Gly Leu Ala Gly Glu Lys Gly Asp
Gln Gly Glu Thr Gly Lys Lys Gly Pro Ile Gly Pro Glu Gly Glu Lys
                                105
                                                     110
Gly Glu Val Gly Pro Ile Gly Pro Pro Gly Pro Lys Gly Asp Xaa
        115
                            120
<210> 576
<211> 142
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (92)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (136)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (138)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 576
Met Cys Ala Phe Pro Trp Leu Leu Leu Leu Leu Leu Gln Glu Gly
  1
                                      10
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- Ser Gln Arg Arg Leu Trp Arg Trp Cys Gly Ser Glu Glu Val Val Ala
 20 25 30
- Val Leu Gln Glu Ser Ile Ser Leu Pro Leu Glu Ile Pro Pro Asp Glu 35 40 45
- Glu Val Glu Asn Ile Ile Trp Ser Ser His Lys Ser Leu Ala Thr Val
 50 55 60
- Val Pro Gly Lys Glu Gly His Pro Ala Thr Ile Met Val Thr Asn Pro 65 70 75 80
- His Tyr Gln Gly Gln Val Ser Phe Leu Asp Pro Xaa Tyr Ser Leu His 85 90 95
- Ile Ser Asn Leu Ser Trp Glu Asp Ser Gly Leu Tyr Gln Ala Gln Val 100 105 110
- Asn Leu Arg Thr Ser Gln Ile Ser Thr Met Gln Gln Tyr Asn Leu Cys 115 120 125
- Val Tyr Arg Trp Leu Ser Glu Xaa Pro Xaa His Cys Glu Leu 130 135 140
- <210> 577
- <211> 124
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> SITE
- <222> (75)
- <223> Xaa equals any of the naturally occurring \mathtt{Hamino} acids
- <400> 577
- Met Ser Pro Arg Gly Thr Gly Cys Ser Ala Gly Leu Leu Met Thr Val 1 5 10 15
- Gly Trp Leu Leu Ala Gly Leu Gln Ser Ala Arg Gly Thr Asn Val 20 25 30
- Thr Ala Ala Val Gln Asp Ala Gly Leu Ala His Glu Gly Glu Gly Glu 35 40 45
- Glu Glu Thr Glu Asn Asn Asp Ser Glu Thr Ala Glu Asn Tyr Ala Pro
 50 55 60
- Ser Glu Thr Glu Asp Val Ser Asn Arg Asn Xaa Val Lys Glu Val Glu 65 70 75 80
- Phe Gly Met Cys Thr Val Thr Cys Gly Ile Gly Val Arg Glu Val Ile 85 90 95
- Leu Thr Asn Gly Cys Pro Gly Gly Glu Ser Lys Cys Val Val Arg Val

100 105 110

Glu Glu Cys Pro Trp Thr Asn Arg Leu Trp Leu Gly
115 120

<210> 578

<211> 113

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring bamino acids

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 578

Met Pro Arg Cys Arg Trp Leu Ser Leu Ile Leu Leu Thr Ile Pro Leu 1 5 10 15

Ala Leu Val Ala Arg Lys Asp Pro Lys Lys Asn Glu Thr Gly Val Leu 20 25 30

Arg Lys Leu Lys Pro Val Asn Ala Phe Xaa Cys Gln Arg Gly Ser Ser 35 40 45

Val Xaa Gly Phe Ala Met Gln Glu Tyr Asn Lys Glu Ser Glu Asp Lys 50 55 60

Tyr Val Phe Leu Val Val Lys Thr Leu Gln Ala Gln Leu Gln Val Thr 65 70 75 80

Asn Leu Leu Glu Tyr Leu Ile Asp Val Glu Ile Ala Arg Ser Asp Cys 85 90 95

Arg Lys Pro Leu Ser Thr Asn Glu Ile Ala Pro Phe Lys Xaa Thr Pro 100 105 110

Ser

<210> 579

<211> 39

<212> PRT

<213> Homo sapiens

<400> 579

Met Ala Phe Gly Gln Glu Val Thr His Leu Thr Lys Thr Ser Trp Leu
1 5 10 15

Ala Pro Leu Arg Phe Ile Lys Gly Leu Leu Gly Pro Trp Gly Trp Ile 20 25 30

Leu Leu Ile Leu Asp Leu Glu 35

<210> 580

<211> 61

<212> PRT

<213> Homo sapiens

<400> 580

Met Asn Ala Ser Leu Ile Ser Trp Val Leu Val Leu His ${\tt Ag}$ Ile Cys 1 5 10 15

Leu Gly Leu Ser Asp Ile Pro Lys Glu Asn Cys Ile Ile Thr Ile Ser 20 25 30

Gly Met Gln Leu Ser His His Gly Gln Ser Leu Gly Lys Trp $\mbox{\font Aa}$ Glu 35 40 45

Lys Leu His Val Phe Tyr Ser Leu Phe Ser Phe Leu Leu 50 55 60

<210> 581

<211> 322

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 581

Arg Ala Pro Arg Arg Thr Gly Pro Ala Ser Phe Ser Ser Arg Pro Ala $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Gly Thr Cys Ser Asp Asn Arg Val Thr Ser Phe Xaa Ap Leu Ile His 20 25 30

Asp Gln Asp Glu Asp Glu Glu Glu Glu Glu Glu Gly Gln Arg Phe Tyr Ala 35 40 45

Gly Gly Ser Glu Arg Ser Gly Gln Gln Ile Val Gly Pro Pro Arg Lsy 50 55 60

Lys Ser Pro Asn Glu Leu Val Asp Asp Leu Phe Lys Gly Ala Lys Glu His Gly Ala Val Ala Val Glu Arg Val Thr Lys Ser Pro Gly Glu Thr Ser Lys Pro Arg Pro Phe Ala Gly Gly Gly Tyr Arg Leu Gly Ala Ala 105 Pro Glu Glu Glu Ser Ala Tyr Val Ala Gly Glu Lys Arg Gln His Ser 120 Ser Gln Asp Val His Val Val Leu Lys Leu Trp Lys Ser Gly Phe Ser Leu Asp Asn Gly Glu Leu Arg Ser Tyr Gln Asp Pro Ser Asn Ala Gln Phe Leu Glu Ser Ile Arg Arg Gly Glu Val Pro Ala Glu Leu Arg Arg Leu Ala His Gly Gly Gln Val Asn Leu Asp Met Glu Asp His Arg Asp 185 Glu Asp Phe Val Lys Pro Lys Gly Ala Phe Lys Ala Phe Thr Gly Glu 195 200 Gly Gln Lys Leu Gly Ser Thr Ala Pro Gln Val Leu Ser Thr Ser Ser Pro Ala Gln Gln Ala Glu Asn Glu Ala Lys Ala Ser Ser Ile Leu Ile Asp Glu Ser Glu Pro Thr Thr Asn Ile Gln Ile Arg Leu Ala Asp 250 Gly Gly Arg Leu Val Gln Lys Phe Asn His Ser His Arg Ile Ser Asp Ile Arg Leu Phe Ile Val Asp Ala Arg Pro Ala Met Ala Ala Thr Ser 280 Phe Ile Leu Met Thr Thr Phe Pro Asn Lys Glu Leu Ala Asp Glu Ser 295 Gln Thr Leu Lys Glu Ala Asn Leu Leu Asn Ala Val Ile Val Gln Arg 315

Leu Thr

<210> 582

<211> 13

<212> PRT

<213> Homo sapiens

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<400> 582
Ser Cys Ile Ser Trp Val Phe Val Met Ile Asn Gly Leu
1 5 10
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<210> 583 <211> 362 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (307) <223> Xaa equals any of the naturally occurring Lamino acids <400> 583 Met Arg Thr Leu Phe Asn Leu Leu Trp Leu Ala Leu Ala Cys Ser Pro Val His Thr Thr Leu Ser Lys Ser Asp AlaLys Lys Ala Ala Ser Lys Thr Leu Leu Glu Lys Ser Gln Phe Ser Asp Lys Pro Val Gln Asp Arg 35 Gly Leu Val Val Thr Asp Leu Lys Ala Glu Ser Val ValLeu Glu His Arg Ser Tyr Cys Ser Ala Lys Ala Arg Asp Arg His Phe Ala Gly Asp Val Leu Gly Tyr Val Thr Pro Trp Asn Ser His Gly Tyr Asp ValThr Lys Val Phe Gly Ser Lys Phe Thr Gln Ile Ser Pro Val Trp Leu Gln 105 Leu Lys Arg Arg Gly Arg Glu Met Phe Glu Val Thr Gly Leu His Asp 120 Val Asp Gln Gly Trp Met Arg Ala Val Arg Lys His Ala Lys Gly Leu 130 135 His Ile Val Pro Arg Leu Leu Phe Glu Asp Trp Thr Tyr Asp Asp Phe Arg Asn Val Leu Asp Ser Glu Asp Glu Ile Glu Glu Leu Ser Lys Thr

Val Val Gln Val Ala Lys Asn Gln His Phe Asp Gly Phe Val Val Glu 180 185 190

Val Trp Asn Gln Leu Leu Ser Gln Lys Arg Val Thr Asp Gln Leu Gly

200

195

- Met Phe Thr His Lys Glu Phe Glu Gln Leu Ala Pro Val Leu Asp Gly 210 220
- Phe Ser Leu Met Thr Tyr Asp Tyr Ser Thr Ala His Gln Pro Gly Pro 225 230 235 240
- Asn Ala Pro Leu Ser Trp Val Arg Ala Cys Val Gln Val Leu Asp Pro 245 250 255
- Lys Ser Lys Trp Arg Ser Lys Ile Leu Leu Gly Leu Asn Phe Tyr Gly 260 265 270
- Met Asp Tyr Ala Thr Ser Lys Asp Ala Arg Glu Pro Val Val Gly Ala 275 280 285
- Arg Tyr Ile Gln Thr Leu Lys Asp His Arg Pro Arg Met Val Trp Asp 290 295 300
- Ser Gln Xaa Ser Glu His Phe Phe Glu Tyr Lys Lys Ser Arg Ser Gly 305 310 315 320
- Arg His Val Val Phe Tyr Pro Thr Leu Lys Ser Leu Gln Val Arg Leu 325 330 335
- Glu Leu Ala Arg Glu Leu Gly Val Gly Val Ser Ile Trp Glu Leu Gly 340 345 36
- Gln Gly Leu Asp Tyr Phe Tyr Asp Leu Leu 355 360
- <210> 584
- <211> 415
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> SITE
- <222> (338)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <400> 584
- Met Arg Thr Leu Phe Asn Leu Leu Trp Leu Ala Leu Ala Cys Ser Pro 1 5 10 15
- Val His Thr Thr Leu Ser Lys Ser Asp Ala Lys Lys Ala Ala Ser Lys 20 25 30
- Thr Leu Leu Glu Lys Ser Gln Phe Ser Asp Lys Pro Val Gln Asp Arg
 35 40 45
- Gly Leu Val Val Thr Asp Leu Lys Ala Glu Ser Val Val Leu Glu His 50 60
- Arg Ser Tyr Cys Ser Ala Lys AlaArg Asp Arg His Phe Ala Gly Asp 65 70 75 80

- Val Leu Gly Tyr Val Thr Pro Trp Asn Ser His Gly Tyr Asp Val Thr 85 90 95
- Lys Val Phe Gly Ser Lys Phe Thr Gln Ile Ser Pro Val Trp Leu Gln 100 105 110
- Leu Lys Arg Arg Gly Arg Glu Met Phe Glu Val Thr Gly Leu His Asp 115 120 125
- Val Asp Gln Gly Trp Met Arg Ala Val ArgLys His Ala Lys Gly Leu 130 135 140
- His Ile Val Pro Arg Leu Leu Phe Glu Asp Trp Thr Tyr Asp Asp Phe 145 150 155 160
- Arg Asn Val Leu Asp Ser Glu Asp Glu Ile Glu GluLeu Ser Lys Thr 165 170 175
- Val Val Gln Val Ala Lys Asn Gln His Phe Asp Gly Phe Val Val Glu 180 185 190
- Val Trp Asn Gln Leu Leu Ser Gln Lys Arg Val Gly LeuIle His Met 195 200 205
- Leu Thr His Leu Ala Glu Ala Leu His Gln Ala Arg Leu Leu Ala Leu 210 215 220
- Leu Val Ile Pro Pro Ala Ile Thr Pro Gly Thr Asp Gln Leu Gly Met 225 230 235 240
- Phe Thr His Lys Glu Phe Glu Gln Leu Ala Pro Val Leu Asp Gly Phe 245 . 250 255
- Ser Leu Met Thr Tyr Asp Tyr Ser Thr Ala His Gln Pro Gly Pro Asn 260 265 270
- Ala Pro Leu Ser Trp Val Arg Ala Cys Val Gln Val Leu Asp Pro Lys 275 280 285
- Ser Lys Trp Arg Ser Lys Ile Leu Leu Gly Leu Asn Phe Tyr Gly Met 290 295 300
- Asp Tyr Ala Thr Ser Lys Asp Ala Arg Glu Pro Val Val Gly Ala Arg 305 310 315 320
- Tyr Ile Gln Thr Leu Lys Asp His Arg Pro Arg Met Val Trp Asp Ser 325 330 335
- Gln Xaa Ser Glu His Phe Phe Glu Tyr Lys Lys Ser Arg Ser Gly Arg 340 345 350
- His Val Val Phe Tyr Pro Thr Leu Lys Ser Leu Gln Val Arg Leu Glu 355 360 365
- Leu Ala Arg Glu Leu Gly Val Gly Val Ser Ile Trp Glu Leu Ala Arg 370 375 380

Ala Trp Thr Thr Ser Thr Thr Cys Ser Arg Trp Ala Leu Arg Pro Pro 385 390 395 400

Arg Trp Thr Cys Ser Phe Leu Ser His Gly Val Ser Glu Gln Val 405 410 415

<210> 585

<211> 461

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (234)

<223> Xaa equals any of the naturally occurring Famino acids

<220>

<221> SITE

<222> (236)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 585

Met Ala Leu Met Leu Ser Leu Val Leu Ser Leu Leu Lys Leu Gly Ser 1 5 10 15

Gly Gln Trp Gln Val Phe Gly Pro Asp Lys Pro Val Gln Ala Leu Val 20 25 30

Gly Glu Asp Ala Ala Phe Ser Cys Phe Leu Ser Pro Lys Thr Asn Ala 35 40 45

Glu Ala Met Glu Val Arg Phe Phe Arg Gly Gln Phe Ser Ser Val Val 50 60

His Leu Tyr Arg Asp Gly Lys Asp Gln Pro Phe Met Gln Met Pro Gln 65 70 75 80

Tyr Gln Gly Arg Thr Lys Leu Val Lys Asp Ser Ile Ala Glu Gly Arg 85 90 95

Ile Ser Leu Arg Leu Glu Asn Ile Thr Val Leu Asp Ala Gly Leu Tyr 100 105 110

Gly Cys Arg Ile Ser Ser Gln Ser Tyr Tyr Gln Lys Ala Ile Trp Glu

Leu Gln Val Ser Ala Leu Gly Ser Val Pro Leu Ile Ser Ile Thr Gly 130 135 140

Tyr Val Asp Arg Asp Ile Gln Leu Leu Cys Gln Ser Ser Gly Trp Phe 145 150 155 160

Pro Arg Pro Thr Ala Lys Trp Lys Gly Pro Gln Gly Gln Asp Leu Ser 165 170 175

- Thr Asp Ser Arg Thr Asn Arg Asp Met His Gly Leu Phe Asp Val Glu
 180 185 190
- Ile Ser Leu Thr Val Gln Glu Asn Ala Gly Ser Ile Ser Cys Ser Met 195 200 205
- Arg His Ala His Leu Ser Arg Glu Val Glu Ser Arg Val Gln Ile Gly 210 215 220
- Asp Thr Phe Phe Glu Pro Ile Ser Trp Xaa Leu Xaa Thr Lys Val Leu 225 230 235 240
- Gly Ile Leu Cys Cys Gly Leu Phe Phe Gly Ile Val Gly Leu Lys Ile
 245 250 255
- Phe Phe Ser Lys Phe Gln Trp Lys Ile Gln Ala Glu Leu Asp Trp Arg 260 265 270
- Arg Lys His Gly Gln Ala Glu Leu Arg Asp Ala Arg Lys His Ala Val 275 280 285
- Glu Val Thr Leu Asp Pro Glu Thr Ala His Pro Lys Leu Cys Val Ser 290 295 300
- Asp Leu Lys Thr Val Thr His Arg Lys Ala Pro Gln Glu Val Por His 305 310 315 320
- Ser Glu Lys Arg Phe Thr Arg Lys Ser Val Val Ala Ser Gln Ser Phe 325 330 335
- Gln Ala Gly Lys His Tyr Trp Glu Val Asp Gly Gly His As Lys Arg 340 345 350
- Trp Arg Val Gly Val Cys Arg Asp Asp Val Asp Arg Arg Lys Glu Tyr 355 360 365
- Val Thr Leu Ser Pro Asp His Gly Tyr Trp Val Leu Arg Leu Asn Gly 370 375 380
- Glu His Leu Tyr Phe Thr Leu Asn Pro Arg Phe Ile Ser Val Phe Pro 385 390 395 400
- Arg Thr Pro Pro Thr Lys Ile Gly Val Phe Leu Asp Tyr Glu Cys Gly
 405 410 415
- Thr Ile Ser Phe Phe Asn Ile Asn Asp Gln Ser Leu Ile Tyr Thr Leu 420 425 430
- Thr Cys Arg Phe Glu Gly Leu Leu Arg Pro Tyr Ile Glu Tyr Pro Ser 435 440 445
- Tyr Asn Glu Gln Asn Gly Thr Pro Arg Asp Lys Gln Gln 450 455 460

<210> 586

<211> 91

<212> PRT

<213> Homo sapiens

<400> 586

Met Leu Cys His Pro His Val His His His Leu Val Cys Leu Leu Ala 1 5 10 15

Thr Leu Thr Phe Ser Leu Asn Ala Ser Cys Ala Glu Gln Thr Phe His

Ser Gln Gln Ser Asn Gly Glu Phe Met Ala ThrLeu Pro Ser Ile Ser 35 40 45

Lys Gln Phe Gly Val Ile Val Trp Lys Pro Gln Arg Lys Asp Val Ile 50 55 60

Arg Leu Pro Val Ala Leu Ser Phe Ser Met Gly Leu Gly Leu Leu Ser 65 70 75 80

Pro Ala Leu Gly Arg Phe Leu Ala Ser Glu Leu 85 90

<210> 587

<211> 142

<212> PRT

<213> Homo sapiens

<400> 587

Met Arg Arg Leu Leu Val Thr Ser Leu Val Val Val Leu Leu Trp
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Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val 20 25 30

Lys His Trp Pro Ser Glu Gln Asp \Re o Glu Lys Ala Trp Gly Ala Arg 35 40 45

Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe Pro 50 55 60

Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Ag Gly Thr 65 70 75 80

Lys Ala Trp Met Glu Thr Glu Asp Thr Leu Gly Arg Val Leu Ser Pro $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$

Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro Pro Gu Glu Asp Gln 100 105 110

Gly Glu Glu Arg Pro Arg Leu Trp Val Met Pro Asn His Gln Val Leu 115 120 125

Leu Gly Pro Glu Glu Asp Gln Asp His Ile Tyr His Pro Gln

130 135 140

<210> 588

<211> 119

<212> PRT

<213> Homo sapiens

<400> 588

Met Arg Arg Leu Leu Leu Val Thr Ser Leu Val Val Val Leu Leu Trp
1 5 10 15

Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val 20 25 30

Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg 35 40 45

Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe Pro 50 55 60

Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly Thr 65 70 75 80

Lys Ala Trp Met Glu Thr Glu Asp Thr Leu Gly Arg Val Leu Ser Pro 85 90 95

Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro Pro Glu Glu Asp Gln 100 105 110

Gly Glu Glu Arg Pro Arg Leu 115

<210> 589

<211> 187

<212> PRT

<213> Homo sapiens

<400> 589

Met Val Ala Ala Thr Val Ala Ala Ala Trp Leu Leu Trp Ala Ala 1 5 10 15

Ala Cys Ala Gln Gln Glu Gln Asp Phe Tyr Asp PheLys Ala Val Asn 20 25 30

Ile Arg Gly Lys Leu Val Ser Leu Glu Lys Tyr Arg Gly Ser Val Ser
35 40 45

Leu Val Val Asn Val Ala Ser Glu Cys Gly Phe Thr Asp Gln HisTyr 50 60

Arg Ala Leu Gln Gln Leu Gln Arg Asp Leu Gly Pro His His Phe Asn 65 70 75 80

- Val Leu Ala Phe Pro Cys Asn Gln Phe Gly Gln Gln Glu Pro Asp Ser 85 90 95
- Asn Lys Glu Ile Glu Ser Phe Ala Arg Arg Thr Tyr Ser Val Ser Phe 100 105 110
- Pro Met Phe Ser Lys Ile Ala Val Thr Gly Thr Gly Ala His Pro Ala 115 120 125
- Phe Lys Tyr Leu Ala Gln Thr Ser Gly Lys Glu Pro Thr Trp Asn Phe 130 135 140
- Trp Lys Tyr Leu Val Ala Pro Asp Gly Lys Val Val Gly Ala Trp Asp 145 150 155 160
- Pro Thr Val Ser Val Glu Glu Val Arg Pro Gln Ile Thr Ala Leu Val 165 170 175
- Arg Lys Leu Ile Leu Leu Lys Arg Glu Asp Leu 180 185
- <210> 590
- <211> 105
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> SITE
- <222> (69)
- <223> Xaa equals any of the naturally occurring Lamino acids
- <400> 590
- Met Ser Gly Leu Ala Ala Ala Ala His Val Phe Arg Val Cys Leu Phe 1 5 10 15
- Pro Leu Ser Trp Gly Ser Ser Lys Thr Thr Phe Ile His Gly Leu Ser 20 25 30
- Ser Tyr Ile Ala Thr Pro Val Leu Asn Ser Ile Phe Ser Ser Trp Lys 35 40 45
- Ser Arg Arg Lys Asp Thr Trp Thr Cys Leu His Arg Leu Ser Ala 50 60
- Phe Pro Ile Ser Xaa Arg Arg Arg Asn Phe Ala Leu Phe Ser His Ser 65 70 75 80
- Cys Val Cys Ile Arg Ser Ser Ser Asp Asp Val Gly Pro Thr Met Tyr 85 90 95
- Ser Phe Ser Val Pro Cys Arg Val Lys 100 105

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<210> 591
<211> 77
<212> PRT
<213> Homo sapiens
<400> 591
Met Tyr Ala Ser Val Leu Leu Thr Gly Leu Leu Ser Leu Gln Arg Cys
Leu Ala Val Thr Arg Pro Phe Leu Ala Pro Arg Cys Ala Ala Arg Pro
Trp Pro Ala Ala Cys Cys Trp Arg Ser Gly Trp Pro Pro Cys Cys Ser
Pro Ser Arg Pro Pro Ser Thr Ala Thr Cys Gly Gly Thr Ala Tyr Ala
Ser Cys Ala Thr Arg Arg Arg Ser Thr Pro Pro Pro Thr
                     70
<210> 592
<211> 45
<212> PRT
<213> Homo sapiens
<400> 592
Met Ser Met Lys Cys Tyr Leu Val Val Leu Ile Cys Ile Pro Leu Met
Ala Thr Asp Ala Glu Cys Leu Phe Leu Cys Leu Arg Ala Met Arg Ile
Ser Leu Glu Lys Gly Leu Ser Arg Ser Phe Ala Tyr Phe
<210> 593
<211> 136
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (1)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occuring L-amino acids
<220>
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<221> SITE

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<222> (8)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 593
Xaa Tyr Xaa Ser Cys Arg Lys Xaa Tyr Leu Thr Tyr Gly Xaa Asn Ser
Arg Val Asp Pro Arg Val Arg His Val Cys Gly Val Arg Ala His Gly
Ala Gly Val Pro His Leu Val Ser GlyGly Asp Glu Val Ser Pro Gly
Gly Ala Gly Pro Val Ser His Ser Ala Glu Glu Gln Pro Val His Gln
Val Asp Arg Leu Cys Gly Ala Cys Pro Gly Gln Arg Val PheLeu Cys
Pro Gly Glu Pro Gly Ala Lys Ser Gly Arg His Leu Ser Gly Gly Val
Pro Pro Tyr Thr Glu Cys Asp His Ala Gln Pro Leu AlaArg Pro Gly
                                 105
Ala Val Glu Ser Cys Asn His Glu Val Cys Ala Gln Thr Gly Glu Thr
Val Gln Pro Leu Met Ala Arg Arg
    130
<210> 594
<211> 141
<212> PRT
<213> Homo sapiens
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Arg Phe Leu Arg Leu His Arg Ala Pro Arg Val Pro His Val $\slash\hspace{-0.6em}$ S Gly 20 25 30

Val Arg Ala His Gly Ala Gly Val Pro His Leu Val Ser Gly Gly Asp 35 40 45

Glu Val Ser Pro Gly Gly Ala Gly Pro Val Ser His Ser Ala Glu Glu 50 55 60

Gln Pro Val His Gln Val Asp Arg Leu Cys Gly Ala Cys Pro Gly Gln

65 70 75 80

Arg Val Phe Leu Cys Pro Gly Glu Pro Gly Ala Lys Ser Gly Arg His
85 90 95

Leu Ser Gly Gly Val Pro Pro Tyr Thr Glu Cys Asp His Ala Gln Pro 100 105 110

Leu Ala Arg Pro Gly Ala Val Glu Ser Cys Asn His Glu Val Cys Ala 115 120 125

Gln Thr Gly Glu Thr Val Gln Pro Leu Met Ala Arg Arg 130 135 140

<210> 595

<211> 310

<212> PRT

<213> Homo sapiens

<400> 595

Met Ala Leu Arg Arg Pro Pro Arg Leu Arg Leu Cys Ala Arg Leu Pro 1 5 10 15

Asp Phe Phe Leu Leu Leu Phe Arg Gly Cys Leu Ile Gly Ala Val 20 25 30

Asn Leu Lys Ser Ser Asn Arg Thr Pro Val Val Gh Glu Phe Glu Ser 35 40 45

Val Glu Leu Ser Cys Ile Ile Thr Asp Ser Gln Thr Ser Asp Pro Arg
50 60

Ile Glu Trp Lys Lys Ile Gln Asp Glu Gln Thr Thr Tyr Val Phe
65 70 75 80

Asp Asn Lys Ile Gln Gly Asp Leu Ala Gly Arg Ala Glu Ile Leu Gly 85 90 95

Lys Thr Ser Leu Lys Ile Trp Asn Val Thr Arg Arg Asp Ser Ala Læ 100 105 110

Tyr Arg Cys Glu Val Val Ala Arg Asn Asp Arg Lys Glu Ile Asp Glu 115 120 125

Ile Val Ile Glu Leu Thr Val Gln Val Lys Pro Val Thr Pro Val Cys 130 135 140

Arg Val Pro Lys Ala Val Pro Val Gly Lys Met Ala Thr Leu His Cys 145 150 155 160

Gln Glu Ser Glu Gly His Pro Arg Pro His Tyr Ser Trp Tyr Arg Asn 165 170 175

Asp Val Pro Leu Pro Thr Asp Ser Arg Ala Asn Pro Arg Phe Arg Asn 180 185 190

Ser Ser Phe His Leu Asn Ser Glu Thr Gly Thr Leu Val Phe Thr Ala 195 200 205

Val His Lys Asp Asp Ser Gly Gln Tyr Tyr Cys Ile Ala Ser Asn Asp 210 215 220

Ala Gly Ser Ala Arg Cys Glu Glu Glu Met Glu Val Tyr Asp Leu 225 230 25 240

Asn Ile Gly Gly Ile Ile Gly Gly Val Leu Val Leu Ala Val Leu 245 250 255

Ala Leu Ile Thr Leu Gly Ile Cys Cys Ala Tyr Arg Arg Gly Tyr Phe 260 265 270

Ile Asn Asn Lys Gln Asp Gly Glu Ser Tyr Lys Asn Pro Gly Lys Pro 275 280 285

Asp Gly Val Asn Tyr Ile Arg Thr Asp Glu Glu Gly Asp Phe Arg His 290 295 300

Lys Ser Ser Phe Val Ile 305 310

<210> 596

<211> 310

<212> PRT

<213> Homo sapiens

<400> 596

Met Ala Leu Arg Arg Pro Pro Arg Leu Arg Leu Cys Ala Arg Leu Pro
1 5 10 15

Asp Phe Phe Leu Leu Leu Phe Arg Gly Cys Leu Ile Gly Ala Val 20 25 30

Asn Leu Lys Ser Ser Asn Arg Thr Pro Val Val Gln Glu Phe Glu Ser 35 40 45

Val Glu Leu Ser Cys Ile Ile Thr Asp Ser Gln Thr Ser Asp Pro Arg
50 55 60

Ile Glu Trp Lys Lys Ile Gln Asp Glu Gln Thr Thr Tyr Val Phe 65 70 75 80

Asp Asn Lys Ile Gln Gly Asp Leu Ala Gly Arg Ala Glu Ile Leu Gly 85 90 95

Lys Thr Ser Leu Lys Ile Trp Asn Val Thr Arg Arg Asp Ser Ala Leu 100 105 110

Tyr Arg Cys Glu Val Val Ala Arg Asn Asp Arg Lys Glu Ile Asp Glu 115 120 125 Ile Val Ile Glu Leu Thr Val Gln Val Lys Pro Val Thr Pro Val Cys 130 135 140

Arg Val Pro Lys Ala Val Pro Val Gly Lys Met AlaThr Leu His Cys 145 150 155 160

Gln Glu Ser Glu Gly His Pro Arg Pro His Tyr Ser Trp Tyr Arg Asn 165 170 175

Asp Val Pro Leu Pro Thr Asp Ser Arg Ala AsnPro Arg Phe Arg Asn 180 185 190

Ser Ser Phe His Leu Asn Ser Glu Thr Gly Thr Leu Val Phe Thr Ala 195 200 205

Val His Lys Asp Asp Ser Gly Gln Tyr Tyr Cys Ile Ala SerAsn Asp 210 215 220

Ala Gly Ser Ala Arg Cys Glu Glu Gln Glu Met Glu Val Tyr Asp Leu 225 230 235 240

Asn Ile Gly Gly Ile Ile Gly Gly Val Leu Val Val Leu Ala Val Leu 245 250 255

Ala Leu Ile Thr Leu Gly Ile Cys Cys Ala Tyr Arg Arg Gly Tyr Phe 260 265 270

Ile Asn Asn Lys Gln Asp Gly Glu Ser Tyr Lys Asn Pro Gly Lys Pro 275 280 285

Asp Gly Val Asn Tyr Ile Arg Thr Asp Glu Glu Gly Asp Phe Arg His 290 295 300

Lys Ser Ser Phe Val Ile 305 310

<210> 597

<211> 59

<212> PRT

<213> Homo sapiens

<400> 597

Met Met Lys Asp Val Phe Phe Phe Leu Phe Leu Leu Ala Val Trp Val 1 5 10 15

Val Ser Phe Gly Val Ala Lys Gln Ala Ile Leu Ile His Asn Glu Arg 20 25 30

Arg Val Asp Trp Leu Phe Arg Gly Pro Ser Thr Thr Pro Thr Ser Pro 35 40 45

Ser Ser Gly Arg Ser Arg Ala Thr Ser Thr Val

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<210> 598
<211> 236
<212> PRT
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<213> Homo sapiens

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring bamino acids

<400> 598

Met Ile Ser Leu Pro Gly Pro Leu Val Thr Asn Leu Leu Arg Phe Leu 1 5 10 15

Phe Leu Gly Leu Ser Ala Leu Ala Pro Pro Ser Arg Ala Gln Leu Gln 20 25 30

Leu His Leu Pro Ala Asn Arg Leu Gln Ala Val Glu Gly Glu Val 35 40 45

Val Leu Pro Ala Trp Tyr Xaa Leu His Gly Glu Val Ser Ser Gln
50 55 60

Pro Trp Glu Val Pro Phe Val Met Trp Phe Phe Lys Gln Lys Glu Lys 65 70 75 80

Glu Asp Gln Val Leu Ser Tyr Ile Asn Gly Val Thr Thr Ser Lys Pro \$90\$

Gly Val Ser Leu Val Tyr Ser Met Pro Ser Arg Asn Leu Ser Leu Arg 100 105 110

Leu Glu Gly Leu Gln Glu Lys Asp Ser Gly Pro Tyr Ser Cys Ser Val 115 120 125

Asn Val Gln Asp Lys Gln Gly Lys Ser Arg Gly His Ser Ile Lys Thr 130 135 140

Gln Gly Val Pro His Val Gly Ala Asn Val Thr Leu Ser Cys Gln Ser 165 170 175

Pro Arg Ser Lys Pro Ala Val Gh Tyr Gln Trp Asp Arg Gln Leu Pro $180 \hspace{1.5cm} 185 \hspace{1.5cm} 190 \hspace{1.5cm}$

Ser Phe Gln Thr Phe Phe Ala Pro Ala Leu Asp Val Ile Arg Gly Ser 195 200 205

Leu Ser Leu Thr Asn Leu Ser Ser Met Ah Gly Val Tyr Val Cys 210 225 220

Lys Ala His Asn Glu Val Gly Thr Ala Asn Val Met 225 230 235

<210> 599 <211> 5889 <212> DNA <213> Homo sapiens

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